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4th and 5th March 2011

City View & Harris Suite
Limerick Strand Hotel

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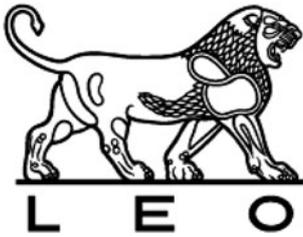
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Sylvester O'Halloran Meeting 4th and 5th March 2011

Draft Programme

Friday 04/03/11 Clinical Session 1 (2.00pm)

Time Allowed: 7 min Speaking
3 min Discussion

City View & Harris Suite, Limerick Strand Hotel

Chairpersons: Prof. A. Hill & Ms. A. Merrigan

Session 1: 14.00–15.50

- 14.00–14.10 1. Circulating miRNAs as blood based markers for prostate cancer**
B.D. Kelly, N Miller, G.C. Durkan, K.J. Sweeney, E. Rogers, K. Walsh, M.J. Kerin (Department of Surgery, Clinical Science Institute, National University of Ireland, Galway, Ireland)
- 14.10–14.20 2. The increasing selective use of transhiatal oesophagectomy in the curative approach to localised oesophageal cancer**
C. Donohoe, N. Ravi, J.V. Reynolds (Department of Surgery, Institute of Molecular Medicine, Trinity Centre for Health Sciences, St. James's Hospital, Dublin 8, Ireland)
- 14.20–14.30 3. Melanoma in a regional referral practice**
R. Piggott, N.M. McNerney, S. Potter, M.J. Kerin, P.J. Regan (Department of Surgery, Galway University Hospital, Galway, Ireland)
- 14.30–14.40 4. The effect of subtype on local recurrence in breast cancer following breast conserving surgery**
A.J. Lowery¹, M.R. Kell², R. Glynn¹, M.J. Kerin¹, K.J. Sweeney¹ (Department of Surgery, Galway University Hospital, Galway, Ireland¹, Department of Surgery and Eccles Breast Screening Unit, Mater Misericordiae University Hospital, Dublin, Ireland²)
- 14.40–14.50 5. Factors associated with failure to fast-track in patients undergoing oesophageal cancer resection**
J. Sullivan, S.M. McHugh, E. Myers, P. Broe (Department of Surgery, Beaumont Hospital, Dublin 9, Ireland)
- 14.50–15.00 6. Does Carotid Endarterectomy (CEA) affect apparent stenosis on the non-operative side?**
C. Browne¹, O. Obinwa¹, L. Byrne¹, M. Dillon¹, D.J.H. McCabe^{2,3}, B. Egan¹, T.M. Feeley¹, S. Tierney^{1,4} (Vascular Surgery Unit¹ and Dept. of Neurology², The Adelaide & Meath Hospital, Dublin incorporating the National Children's Hospital, Trinity College Dublin, Ireland; Dept. of Clinical Neurosciences³, Royal Free Campus, UCL Institute of Neurology, London, UK; Royal College of Surgeons in Ireland⁴, Dublin, Ireland)
- 15.00–15.10 7. Nipple sparing mastectomy is an oncologically safe procedure**
A.M. Mc Dermott¹, E. Caffrey², C. Brodie², M.J. Kerin¹ (Dept. of Surgery, University Hospital Galway, Newcastle Road, Galway¹, Dept. of Histopathology, University Hospital Galway, Newcastle Road, Galway²)
- 15.10–15.20 8. Endovascular aortic repair for elective and urgent thoracic aortic pathologies**
A.R. Moriarity, P.A. Naughton, J. O'Donnell, E.A.H. Kheirelseid, S.N. Haider, M.P. Colgan, V. Young, M. Nolan, E. McGovern, S.M. O'Neill, D.J. Moore, P. Madhavan (Departments of Vascular and Cardiothoracic Surgery, St James's Hospital, James's St, Dublin 8, Ireland)
- 15.20–15.30 9. Squamous cell carcinoma of the anal canal: Ten year experience in a specialist unit**
A.C. McArdle, J.O. Larkin, F. Cooke, R.B. Stephens, P.H. McCormick, B.J. Mehigan (Department of Colorectal Surgery, St James's Hospital, Dublin 8, Ireland)
- 15.30–15.40 10. Risk factors associated with the development of post-thrombotic syndrome—a systematic review and meta-analysis**
A. Noorani¹, S.R. Walsh², U. Sadat¹, J.R. Boyle¹, P.D. Hayes¹, K. Varty¹ (Cambridge Vascular Unit, Addenbrookes Hospital¹ University of Limerick, Ireland²)
- 15.40–15.50 11. Ultrasound-guided core biopsy of axillary nodal metastases can reduce the need for sentinel lymph node biopsies in primary breast cancer patients**
J.G. Solon, D. Al-Azawi, C. Power, D. Duke, A.D.K. Hill (Beaumont Hospital, Beaumont, Dublin 9, Ireland)
- 15.50–16.10 Coffee
Visit Posters & Trade Exhibition**

Friday 4/03/11 Session 2 Prize Session—Sponsored By Leo Pharma (4.10 pm)

City View & Harris Suite, Limerick Strand Hotel

Time Allowed: 7 min Speaking
3 min Discussion

Chairpersons: Prof. J. Calvin Coffey & Mr. Simon Cross

Session 2: 16.10–18.00

- 16.10–16.20 12. The impact of high-dose statin therapy, on transendothelial neutrophil migration and serum cholesterol levels in healthy male volunteers**
A. Kinsella*^{1,2}, A. Raza*^{1,2}, S. Kennedy², Y. Fan², A.E. Wood¹, R.W. Watson² joint first authorship* (National Centre for Cardiothoracic Surgery, Mater Misericordiae University Hospital, Eccles Street, Dublin 7¹, UCD School of Medicine & Medical Sciences, UCD Conway Institute of Biomolecular and Biomedical Sciences, University College Dublin, Belfield, Dublin, Ireland²)
- 16.20–16.30 13. Toll like receptor 4—a double edged sword between host defences and cancer cells**
A. Ahmed, J.H. Wang, H.P. Redmond (Department of Academic Surgery, University College Cork, Cork)
- 16.30–16.40 14. Analysis of margin index as a method for predicting residual disease following breast-conserving surgery in a national cancer centre**
J.C. Bolger, J.G. Solon, C. Power, A.D.K Hill (Department of Surgery, Beaumont Hospital, Beaumont, Dublin 9, Ireland)
- 16.40–16.50 15. Trastuzumab promotes signalling through the endocrine pathway in ER- expressing breast cancer cells lines**
J.G. Solon, D. Collins, M. McIlroy, A.D.K. Hill, L. Young (Department of Surgery, York House, RCSI, St Stephen's Green Dublin 2, Ireland)
- 16.50–17.00 16. IGF1 axis expression correlates with obesity status in oesophageal cancer patients**
C.L. Donohoe¹, S.L. Doyle¹, S. McGarrigle¹, M.C. Cathcart¹, E. Daly², J. Lysaght¹, G.P. Pidgeon¹, J.V. Reynolds¹ (Department of Surgery, Institute of Molecular Medicine, Trinity Centre for Health Sciences, St. James's Hospital, Dublin 8. Ireland¹, Department of Pathology, Beaumont Hospital/Royal College of Surgeons in Ireland, Dublin 9, Ireland²)
- 17.00–17.10 17. A characterisation of mucin expression in the inflamed versus healthy colon**
N. Bambury, G. Lennon, A. Lavelle, A. Maguire, N. Docherty, J.C. Coffey, P.R. O'Connell (Department of Surgery, St. Vincent's University Hospital, Dublin 4, Ireland)
- 17.10–17.20 18. Decellularised xenografts as potential bladder augmentation scaffolds: an animal trial**
N.F. Davis¹, A. Huber², H.D. Flood¹, S.F. Badylak², T.M. McGlughlin³ (Department of Urology, Mid-Western Regional Hospital, Dooradoyle, Co Limerick¹, McGowan Institute for Regenerative Medicine, University of Pittsburgh, Pittsburgh, USA², Centre for Applied Biomedical Engineering Research, University of Limerick, Castletroy, Co. Limerick, Ireland³)
- 17.20–17.30 19. Pre-operative neutrophil-lymphocyte ratio predicts survival following major vascular surgery**
R. Agha, T.Y. Tang, J. Wong, S.R. Walsh (Cambridge University Hospitals NHS Trust & Norfolk & Norwich University Hospital NHS Trust)
- 17.30–17.40 20. ER stress in colorectal cancer**
D. Ryan^{1,2}, S. Hector¹, J. Kehoe², C.G. Concannon¹, E. Kay³, D. McNamara², J.H.M. Prehn¹ (Department of Physiology and Medical Physics, RCSI, Dublin 2, Ireland¹, Department of Colorectal Surgery, Beaumont Hospital, Dublin 9, Ireland², Department of Pathology, Beaumont Hospital and RCSI, Dublin 9, Ireland³)
- 17.40–17.50 21. MiR-195 as a minimally invasive biomarker for breast cancer**
A.M. McDermott, N. Miller, H.M. Heneghan, M.J. Kerin (Department of Surgery, University Hospital Galway, Newcastle Road, Galway, Ireland)

Friday 04/03/11 Session 3 Head and Neck Session (16.45 pm)

O'Brien Suite, Limerick Strand Hotel

Time Allowed: 7 min Speaking
3 min Discussion

Chairpersons: Prof. Conrad Timon & Mr. Ishtequa Ahmed

Session 3: 16.45–18.35

- 16.45–16.55 22. The role of minimally invasive parathyroidectomy in patients with familial primary hyperparathyroidism?**
R.S. Prichard¹, C.J. O'Neill¹, J. Oucharek¹, R.S. Sippel², L.W. Delbridge¹, S.B. Sidhu¹, H. Chen² (University of Sydney Endocrine Surgical Unit, Sydney, Australia¹ and University of Wisconsin Endocrine Surgical Unit, Madison, Wisconsin, USA²)

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- 16.55–17.05 23. West of Ireland facial injury study**
J. Donnellan¹, S.E. Byrne³, T.W.M. Walker², P.J. McCann², M.J. Kerin¹ (Dept. of Surgery, National University of Ireland, Galway¹, Dept. of Oral & Maxillofacial Surgery, University Hospital, Galway², Medical Student, National University of Ireland, Galway, Ireland³)
- 17.05–17.15 24. The Accuracy of HIPE with regards the recording of Tracheostomies**
R. Kealy, P. Lennon, J.E. Fenton (Dept. of Otolaryngology, Head and Neck Surgery, Mid-Western Regional Hospital, Limerick, Ireland)
- 17.15–17.25 25. An Epidemiological study of patients admitted to hospital with Infectious Mononucleosis and Bacterial Tonsillitis, with a particular focus on the length of stay, over a 20-year period**
P. Lennon¹, J. Saunders², J.E. Fenton¹ (Dept. of Otolaryngology, Head and Neck Surgery, Mid-Western Regional Hospital, Limerick¹ Statistical Consulting Unit, Dept of Mathematics & Statistics and Graduate Entry Medical School, University of Limerick, Ireland²)
- 17.25–17.35 26. Safeguarding medical literature**
C. Heffernan, J.E. Fenton (Mid-Western Regional Hospital/University of Limerick, Dooradoyle, Limerick, Ireland)
- 17.35–17.45 27. ‘Two week rule’ referrals for suspected head and neck cancer: an audit of clinical effectiveness**
T.S. Ahmed, C. Pepper (Dept. of ENT Surgery St George’s Hospital Blackshaw Road Tooting, London SW17 0QT, UK)
- 17.45–17.55 28. Radio-guided parathyroidectomy: “a marvel of modern endocrine surgery or a superfluity that can no longer be afforded?”**
J.A. Keaveney, D.J. Landon, S. O’Shaughnessy, T. Khani, D. Quill (Dept. of Surgery, University Hospital Galway, Newcastle Road, Galway, Ireland)
- 17.55–18.05 29. Current practice of ENT Surgeons: advice regarding length of time to refrain from contact sports after treatment of nasal fractures**
S. Jaber, P. Lennon, J.E. Fenton (Dept. of Otolaryngology, Head and Neck Surgery, Mid- Western Regional Hospital, Limerick, Ireland)
- 18.05–18.15 30. Chin projection preferences for the female Caucasian**
A. McArdle¹, R. Young², M.H. Kelly² (Dept of Surgery, St James’s Hospital, James’s Street, Dublin 8, Ireland¹, Craniofacial and Orbito-Palpebral Surgery Unit, Chelsea and Westminster Hospital, 369 Fulham Road, London, SW10 9NH, UK²)
- 18.15–18.25 31. Preferences for the nasal supratip break**
A.McArdle¹, R. Young², M.H. Kelly² (St. James’s Hospital, James’s Street, Dublin 8, Ireland¹, Craniofacial and Orbito-Palpebral Surgery Unit, Chelsea and Westminster Hospital, 369 Fulham Road, London, SW10 9NH, UK²)

Guest Speaker 18.30 pm–19.30 pm

The ORL–HNS Guest Lecture Presented By:

Prof. Conrad Timon
TCD Medical School
St. James’ and Royal Victoria Eye & Ear Hospitals
Dublin

“Minimally invasive thyroid surgery; Why I do it?”

**18.00–18.20 – Visit Posters & Trade Exhibition
18.20–19.10**

19th Sylvester O’Halloran Lecture

**“Breast reconstruction in the 21st century
– the present and the future”**

Presented By:

Ms. Eva Weiler-Mithoff

**20.30 Reception (River Restaurant, Limerick Strand Hotel, Limerick)
21.00 Dinner (Dress Informal)**

Saturday 05/03/11 Clinical Session II (9.00 am)

City View & Harris Suite, Limerick Strand Hotel

Time Allowed: 7 min Speaking
3 min Discussion

Chairpersons: Prof. Stewart Walsh & Mr. Maurice Stokes

Session 4: 09.00–10.50

- 09.00–09.10 32. Can bladder emptying efficiency, a measure of post-operative bladder function, be transferred to the post-natal ward?**
E. Healy, F. Martyn, S. Skehan, U. Fahy, H. Flood (Graduate Entry Medical School, University of Limerick, Mid-Western Regional Maternity Hospital, Limerick, and Department of Urology, Mid-Western Regional Hospital, Limerick)
- 09.10–09.20 33. Sentinel node biopsy following a preoperative diagnosis of ductal carcinoma in situ (DCIS) in the management of screen detected cancer**
B. Higgins¹, M.C. Whelan¹, J. Coyne¹, T. Mooney², K.J. Sweeney¹ (Breastcheck, Western Unit, Galway¹ National Cancer Screening Service, Dublin, Ireland²)
- 09.20–09.30 34. Endovascular versus open repair of abdominal aortic aneurysm—a single centre experience**
E. Boyle, A. Aziz, A. O’Callaghan, S. Walsh, P. Burke, P.A. Grace, E. Kavanagh (Mid-Western Regional Hospital, Dooradoyle, Limerick, Ireland)
- 09.30–09.40 35. Axillary sentinel lymph node biopsy: A mid-western experience**
N.P. Kelly, K. Zaki, C. Ahearne, A. Merrigan, S. Tormey (Symptomatic Breast Centre, Third Floor, Nurses Home, Mid Western Regional Hospital, Dooradoyle Limerick, Ireland)
- 09.40–09.50 36. Electrochemotherapy—an effective treatment for intractable cutaneous lesions secondary to breast cancer**
M.G. Bourke, S. Salwa, J.O. Larkin, M. Sadacharam, M.C. Whelan, J.P. Cashman, C.G. Collins, D.M. Soden, G.C. O’Sullivan (Cork Cancer Research Centre, Mercy University Hospital and Leslie C. Quick Jnr. Laboratory, Biosciences Institute, University College Cork, Ireland)
- 09.50–10.00 37. A decision analysis between early and late defunctioning ileostomy reversal following primary resection of a rectal tumour**
J.C. Bolger¹, C.F. Devitt², E. Myers³ (Department of Surgery, Beaumont Hospital, Beaumont, Dublin 9, Ireland¹, Economic and Social Research Institute, Whitaker Square, Sir John Rogerson’s Quay, Dublin 2, Ireland², Department of Colorectal Surgery, Royal Prince Alfred Hospital and Concord Hospital, Sydney, New South Wales, Australia³)
- 10.00–10.10 38. Augmentation index and multivariate risk analysis for assessment of peripheral vascular disease**
T. Hynes, P. Coyle, B. Forrester, M.C. Moloney, G.P. Duff, E.G. Kavanagh, P.E. Burke, S.R. Walsh, P.A. Grace (Department of Vascular Surgery, Mid-Western Regional Hospital, Limerick, Ireland)
- 10.10–10.20 39. Retrospective application of Nottingham Prognostic Index (NPI) and adjuvant! Online tool in newly diagnosed patients with early breast cancer in mid-western Ireland**
K.I. Quintyne, B. Woulfe, R.K. Gupta (Department of Medical Oncology, Mid-Western Cancer Centre, Mid-Western Regional Hospital, Limerick, Ireland)
- 10.20–10.30 40. Bilirubin is a specific marker for acute appendicitis**
A. Emmanuel, P. Murchan, I. Wilson, P. Balfe (St Luke’s Hospital, Kilkenny and South Tipperary General Hospital, Clonmel, Ireland)
- 10.30–10.40 41. Primary closure vs excision and healing by secondary intention in the treatment of sacrococcygeal pilonidal disease**
J. Sullivan, E. Tong, E. McMackin, Z. Al-Hilli, E. Carton, P. Gillen (Our Lady of Lourdes Hospital, Drogheda, Ireland)
- 10.40–10.50 42. Defaecating proctography in the investigation of functional anorectal disorders**
K.E. O’Sullivan¹, J.O. Larkin¹, N. Sheehy², B.J. Mehigan¹, P.H. McCormick¹ (Department of Colorectal Surgery, St James’s Hospital, Dublin 8¹, Department of Radiology, St James’s Hospital, Dublin 8, Ireland²)
- 10.50–11.10 Coffee**
Visit Posters, Trade Exhibition & Poster Adjudication

Saturday 05/03/11 Session 5 Surgical Practice “Managing Change” (11.10 am)

City View & Harris Suite, Limerick Strand Hotel

Time Allowed: 7 min Speaking
3 min Discussion

Chairpersons: Prof. Pierce Grace & Ms. Louise Kelly

Session 5: 11.10–13.00

- 11.10–11.20 43. Preventing infection in general surgery—Improvements through education of surgeons by surgeons**
S.M. McHugh¹, M.A. Corrigan¹, B.D. Dimitrov², S. Cowman³, S. Tierney^{4,5}, A.D.K. Hill¹, H. Humphreys^{6,7} (Department of Surgery, Royal College of Surgeons in Ireland & Beaumont Hospital, Dublin¹, Department of General Practice, Royal College of Surgeons in Ireland², Faculty of Nursing & Midwifery, Royal College of Surgeons in Ireland³, Department of Surgical Informatics, Royal College of Surgeons in Ireland⁴, Department of Surgery, The Adelaide and Meath Hospitals incorporating the National Childrens Hospital, Tallaght, Dublin⁵, Department of Microbiology, Royal College of Surgeons in Ireland⁶, Department of Clinical Microbiology, Beaumont Hospital, Dublin, Ireland⁷)
- 11.20–11.30 44. Acquisition of basic surgical skills early in the undergraduate career**
K.H. Chang¹, G. Flaherty², P. Cantillon³, C.M. Malone¹, M.J. Kerin¹ (Department of Surgery¹, Department of Medicine², Department of General Practice³, College of Medicine and Health Sciences, National University of Ireland, Galway, Ireland)
- 11.30–11.40 45. Virtual reality outpatient: a feasibility study**
U. Hayden, M.Kelly, B. Devitt, P. Ridgway (Professorial Surgical Unit Gogarty Ward AMNCH Tallaght, Surgical Department, AMNCH, Tallaght, Dublin 24, Ireland)
- 11.40–11.50 46. Emerging Routine day case laparoscopic cholecystectomy in Ireland: regional hospital experience**
T. Akhigbe, S. Johnston, R. Abubakr, D. Hehir (Department of Surgery, Midland Regional Hospital Tullamore, Ireland)
- 11.50–12.00 47. Paediatric laparoscopic appendicectomy in a regional general hospital**
E. Redmond, A. O’Callaghan, A. Ní Eochagain, P.A. Grace (Department of Surgery, Mid-Western Regional Hospital, Limerick)
- 12.00–12.10 48. Day-case laparoscopic Nissen fundoplication: a default pathway or is selection the key?**
M.E. Kelly, T.K. Gallagher, M. Dobson, K.C. Conlon, P.F. Ridgway (Department of Surgery, The Adelaide and Meath Hospital, Dublin Incorporating the National Children’s Hospital, Dublin, Ireland)
- 12.10–12.20 49. Investment in diabetic foot services—reducing the drain on resources?**
G. Nason, N. Iqbal, H. Strapp, J. Gibney, B. Egan, T.M. Feeley, S. Tierney (Department of Vascular Surgery, Adelaide & Meath incorporating the National Children’s Hospital, Tallaght, Dublin 24, Ireland)
- 12.20–12.30 50. Improving patient care—a one year experience in a dedicated Surgical Assessment Unit**
E. Boyle, M. Clarke-Moloney, S. Campbell, P. Finnegan, H. McCormack, P. Burke (Mid-Western Regional Hospital, Dooradoyle, Limerick, Ireland)
- 12.30–12.40 51. An Irish perspective on comparison of hospital costs of endovascular versus open abdominal aortic aneurysm repair**
J. Dorairaj¹, Z. Martin¹, S. Moores², B. Fitzgerald², S. N. Haider¹, M.P. Colgan¹, S. O’Neill¹, D.J. Moore¹, P. Madhavan¹ (Department of Vascular Surgery, St James’s Hospital, Dublin¹ Finance Department, St. James’s Hospital, Dublin, Ireland²)
- 12.40–12.50 52. A cost-benefit analysis of OncotypeDX Assay in the selection of women with screen detected breast cancer for adjuvant systemic cytotoxic chemotherapy**
J.P. Donnellan¹, M.C. Whelan^{1,2}, P. Donnellan³, K.J. Sweeney^{1,2} (Department of Surgery, University College Hospital, Galway¹ Breastcheck, University College Hospital, Galway² Department of Medical Oncology, University College Hospital, Galway, Ireland³)
- 12.50–13.00 53. Information and the audit: experience of auditing clinical practice in a regional hospital**
C. Ahearne; K. Zaki; N. Kelly; S. Tormey (Department of Surgery, Mid-Western Regional Hospital, Limerick, Ireland)

12.40 – Panel Adjudication for Sylvester O’Halloran Prize

13.00–13.45

Sir Thomas Myles Lecture
Presented By:

Prof. J. Calvin Coffey

“Surgical GEMS”

Followed by Presentations of:

O'Halloran Prize (Sponsored by Leo Pharma)

Poster Prize (Sponsored by sanofi aventis)

Head & Neck Prize (Sponsored by Sylvester O'Halloran Meeting)

Orthopaedic Prizes (Sponsored by Merck Sharp & Dohme)

Anaesthesia Prize (Sponsored by Astellas Pharma Co. Ltd.,)

Saturday 05/03/11 Session 6 Orthopaedic Session (9.00 am)

Wogan Suite, Limerick Strand Hotel

Time Allowed: 7 min Speaking

3 min Discussion

Chairperson: Mr. Lester D'Souza

Session 6: 09.00–10.50

09.00–09.10 54. X-bolt versus the dynamic hip screw (DHS)

F. O'Neill¹, T. McGloughlin², B. Lenehan¹, J.C. Coffey², F. Condon¹, M. Walsh² (Centre for Applied Biomedical Engineering Research (CABER), Department of Mechanical and Aeronautical Engineering and Materials and Surface Science Institute (MSSI), University of Limerick¹, Mid-Western Regional Orthopaedic Hospital Croom/Mid-Western Regional Hospital Dooradoyle Limerick, Ireland²)

09.10–09.20 55. The use of Neuromuscular Electrical Stimulation (NMES) in the early recovery period following Total Hip Arthroplasty to enhance lower limb haemodynamics

O. Breathnach¹, B. Broderick², G. O'Laighin², F. Condon¹, E. Masterson¹ (Mid-Western Regional Orthopaedic Hospital, Croom, Limerick¹, National Centre for Biomedical Engineering Science, National University of Ireland, Galway, Ireland²)

09.20–09.30 56. Exeter total hip replacement: comparison of clinical and radiological outcomes between consultant and trainee grade orthopaedic surgeons

A.J. Cassar Gheiti, C. Kegan, S. Boran, D. C. Molony, P. Kenny (Cappagh National Orthopaedic Hospital, Dublin 11, Ireland)

09.30–09.40 57. Proximal femoral anatomy in total hip arthroplasty: a tri-planar computerized tomographic assessment

A.R. Memon, J. Butler, S. Guerin, O. Flanagan, J. Harty (Department of Trauma and Orthopaedics, and Radiology Department, Cork University Hospital, Ireland)

09.40–09.50 58. Hip fractures patients on clopidogrel, time to change management strategy

A. Al. Khudairy, M. Sayana, J.F. Quinlan (Department of Orthopaedics, Waterford Regional Hospital, Waterford, Ireland)

09.50–10.00 59. Correlation between osteoarthritis and osteoporosis using peri-operative DEXA scanning in patients undergoing elective joint replacement

A. Ali, B. MacGregor, P. O'Rourke (Orthopaedics Department, Letterkenny General Hospital, Letterkenny, Co.Donegal, Ireland)

10.00–10.10 60. The Repicci II unicondylar knee arthroplasty—results from an independent centre

M. Win Hein, T. O'Donnell (Centre for Orthopaedics, UPMC Beacon Hospital, Sandyford, Dublin 18, Ireland)

10.10–10.20 61. Prophylactic antibiotics for elective knee arthroscopy: do we really need it?

G.A. Naqvi, S. Jahangiri, S.A. Malik, N. Awan (Department of Orthopaedics, Our Lady's Hospital, Navan, Ireland)

10.20–10.30 62. Anterior cruciate ligament reconstruction

B. O'Neill, W. Curtin (National University of Ireland, Galway, Ireland)

10.30–10.40 63. Arthroscopic meniscal repair using the fast-fix system

P. Sexton, C. Moran D. Ferguson, P. Waters, S. Roche, F. Shannon (Department of Orthopaedic Surgery, University College Hospital Galway Newcastle Road, Galway, Ireland)

10.40–10.50 64. Treatment of Tibiofibular syndesmotric disruptions with Arthrex Tightrope™

G.A. Naqvi, A. Shafqat, N. Awan (Department of Orthopaedics, Our Lady of Lourdes Hospital, Drogheda, Ireland)

10.50–11.10 Coffee

Visit Posters, Trade Exhibition & Poster Adjudication

Saturday 05/03/11 Session 7 Orthopaedic Session (11.10 am)

Wogan Suite, Limerick Strand Hotel

Time Allowed: 7 min Speaking
3 min Discussion

Chairperson: Mr. Dermot O'Farrell

Session 7: 11.10–12.30

- 11.10–11.20 65. Operative scaphoid fixation in an Irish regional trauma centre—5 year prospective study of a single surgeon case series**
P.S. Waters, S.J. Roche, P. Sexton, M.E. O'Sullivan (Department of Orthopaedics, Merlin Park Hospital, Galway, Ireland)
- 11.20–11.30 66. Fastform: new era in immobilisation of upper limb fractures**
A. Al Khudairy, K.M. Hirpara, I.P. Kelly, J.F. Quinlan (Department of Orthopaedics Waterford Regional Hospital, Waterford, Ireland)
- 11.30–11.40 67. Outcomes of clavicular hookplate fixation for lateral (Neer type II) clavicle fractures: a single centre experience of 36 cases**
D.W. Good, D. Lui, M. Leonard, S. Morris, M. Neligan, P. Nicholson, J.P. McElwain (The Department of Trauma Orthopaedics, AMNCH, Tallaght, Dublin 24, Ireland)
- 11.40–11.50 68. The use of Skype in Orthopaedic Research: a functional outcome comparison study of outpatient versus Skype follow-up of patients undergoing Clavicular hookplates**
D.W. Good, D. Lui, M. Leonard, S. Morris, M. Neligan, P. Nicholson, J.P. McElwain (The Department of Trauma Orthopaedics, AMNCH, Tallaght, Dublin 24, Ireland)
- 11.50–12.00 69. Suprascapular nerve injury during glenoid component insertion in reverse geometry total shoulder replacement: a Cadaveric model**
A.J. Cassar Gheiti, D.C. Molony, J. Kennedy, A. Schepens, H.J. Mullett (Department of Orthopaedic Surgery, Cappagh National Orthopaedic Hospital, Finglas, Dublin 11, Ireland)
- 12.00–12.10 70. A new surgical approach to preserving the pronator quadratus for volar plating of the distal radius**
M. Win Htein, T. O'Donnell (Centre for Orthopaedics, UPMC Beacon Hospital, Sandyford, Dublin 18, Ireland)
- 12.10–12.20 71. Dressing a surgeon! Patient attitudes to surgeons attire in a national orthopaedic hospital**
R.G. Kavanagh, J.C. Kelly, J.M. O'Byrne (Cappagh National Orthopaedic Hospital, Finglas, Dublin 11, Ireland)
- 12.20–12.30 72. Is the case report fractured? In defence of the orthopaedic case report**
R.G. Kavanagh, J.C. Kelly, P. Lennon, P. Connolly (Cappagh National Orthopaedic Hospital, Finglas, Dublin 11, Ireland)

**12.40 – Panel Adjudication for Sylvester O'Halloran Prize
13.00–13.45**

Sir Thomas Myles Lecture
Presented By:

Prof. J. Calvin Coffey

“Surgical GEMS”

Followed by Presentations of:

O'Halloran Prize (Sponsored by Leo Pharma)

Poster Prize (Sponsored by sanofi aventis)

Head & Neck Prize (Sponsored by Sylvester O'Halloran Meeting)

Orthopaedic Prizes (Sponsored by Merck Sharp & Dohme)

Anaesthesia Prize (Sponsored by Astellas Pharma Co. Ltd.,)

Saturday 05/03/11 Session 8 Anaesthesia Session (10.30 am)

Henihan Suite, Limerick Strand Hotel

Time Allowed: 7 min Speaking
3 min Discussion

Chairperson: Professor Dominic Harmon

Session 8: 10.30–11.50

- 10.30–10.40 73. An unusual complication of anaesthesia**
M. Walsh, G. Weekes, J.G. Kennedy (Mid-Western Regional Hospital, Dooradoyle, Limerick, Ireland)
- 10.40–10.50 74. Will Medical Schools start using ultrasound machines to teach undergraduate Medical Students anatomy? Student feedback from the Department of Anatomy, RCSI**
C.M. Nix¹, D.F. Harmon², T. Farrell³ (Department of Anaesthesia, Beaumont Hospital, Dublin 9¹; Department of Anaesthesia, Mid Western Regional Hospital, Limerick²; Department of Anatomy, RCSI, Dublin 2, Ireland³)
- 10.50–11.00 75. Image quality and intubating bronchoscope**
R. O'Connor, J.P. Hughes, S. Grimes (Anaesthetic Department Mid-Western Regional Hospital, Dooradoyle, Limerick, Ireland)
- 11.00–11.10 76. Audit of timing and mode of analgesia and BAEM guidelines in patients presenting to St James' emergency department with fractured neck of femur**
S.E. Smith, A. Moore (Department of Emergency Medicine, St James' Hospital, Dublin, Ireland, Currently- Dept of Anaesthesia, Coombe women and Infants Hospital, Dublin, Ireland)
- 11.10–11.20 77. Ultrasound-guided scapulocostal syndrome injection technique**
C. McCarthy, G. Weeks, V. Alexiev, S.Z. Ali, D. Harmon (Department of Anaesthesia and Pain Medicine, Mid-Western Regional Hospitals, Dooradoyle, Limerick, Ireland)
- 11.20–11.30 78. Analgesic effect of deep peroneal nerve block and metatarsalgia**
G. Weeks, D. Harmon (Department of Anaesthesia and Pain Medicine, Mid-Western Regional Hospitals, Dooradoyle, Limerick, Ireland)
- 11.30–11.40 79. Analgesic effect of ultrasound guided pudendal nerve blocks in interstitial cystitis**
L. Lean, G. Weeks, V. Alexiev, S.Z. Ali, D. Harmon (Department of Anaesthesia and Pain Medicine, Mid-Western Regional Hospitals, Dooradoyle, Limerick, Ireland)
- 11.40–11.50 80. An atypical presentation of ruptured thoracic aneurism**
V. Alexiev, J. Glasheen, M. Coleman, D. Harmon (Department of Anaesthesia and Pain Medicine, Mid-Western Regional Hospitals, Dooradoyle, Limerick, Ireland)

Poster Session—Sponsored by sanofi aventis.

- 1. A patient satisfaction study in an Emergency Department and a Surgical Assessment Unit**
B. Forrestal, P. Coyle, T. Hynes, M.C. Moloney, E.G. Kavanagh, P.E. Burke, S.R. Walsh, P.A. Grace (Department of Surgery, Mid-Western Regional Hospital, Limerick, Ireland)
- 2. The financial impact of generic drug under-prescription in a general surgery unit**
B.B. McHugh¹, S.M. McHugh^{2,3}, M.A. Corrigan^{2,4}, R.E. McGrath⁵, A. Rayis¹, S. Johnston¹ (Department of Surgery, Tullamore General Hospital, Co.Offaly¹, Department of Surgery, Royal College of Surgeons in Ireland², Department of Surgery, Beaumont Hospital, Dublin 9³, Department of Surgery, Cork University Hospital, Cork⁴, Pharmacy Department, Mater Misericordiae University Hospital, Dublin 7, Ireland⁵)
- 3. The role of renal embolisation in the management of renal cell carcinoma—single centre experience**
M. Holly, B.B. McGuire, D. Fanning, M. Akram, J.D. Drumm, H.D. Flood (Department of Urology Mid-Western Regional Hospital Limerick, Ireland)
- 4. Training surgical residents increases mental strain: A prospective study of heart rate variability in endocrine surgery**
R.S. Prichard, J. Oucherek, C.J. O’Neill, I. Delbridge, M.S. Sywak (University of Sydney Endocrine Surgical Unit, Sydney, Australia)
- 5. M D M Audit Breast Surgery Unit, Mid-Western Regional Hospital, Limerick**
M.A. Sheikh, A. Foster, J. Martin, R.K. Gupta, S. Finn, S. Lyons, S. Tormey, B.A. Merrigan (Breast Surgery Unit, Mid-Western Regional Hospital, Dooradoyle, Limerick, Ireland)
- 6. Self expanding metal stent placement by colorectal surgeons in the management of obstructing colorectal cancers**
A.R. Moriarity, J.O. Larkin, F. Cooke, P.H. McCormick, B.J. Mehigan (Department of Colorectal Surgery, St James’s Hospital, James’s St, Dublin 8, Ireland)
- 7. The untold truth about “bath salt” highs: a case series**
J. J. Dorairaj, C. Healy, M. McMenamin, P. Eadie (Department of Plastic and Reconstructive Surgery, St James’s Hospital, Dublin, Ireland)
- 8. Age related bone atrophy of the inferior maxillary bone: biomechanical considerations for fixation**
E.P. Kavanagh^{1,2}, F. Wallis³, T. McGloughlin^{1,2}, G. Kearns⁴, J. Jarvis² (Centre for Applied Biomedical Engineering Research (CABER), University of Limerick, Ireland¹, Dept. of Mechanical & Aeronautical Engineering, University of Limerick, Ireland², Dept. of Radiology, Mid-Western Regional Hospital, Limerick, Ireland³, National Maxillofacial Unit, St. James Hospital, Dublin, Ireland⁴)
- 9. Pattern and outcome of preoperative ultrasonography on laparoscopic cholecystectomy**
T. Akhigbe, S. Johnston, R. Abubakr, D. Hehir (Department of Surgery, Midland Regional Hospital, Tullamore, Ireland)
- 10. Clinicopathological variables of BRCA 1 and 2 gene mutations in the West of Ireland population**
J.J. Dorairaj¹, R. Irwin¹, D. Wall², N. Cody³, N. Miller¹, K.J. Sweeney¹, A. Green³, M.J. Kerin¹ (Department of Surgery, University Hospital Galway, Galway¹, Department of Biostatistics, National University of Ireland, Galway, Galway², National Centre for Medical Genetics, Crumlin, Dublin³, Ireland)
- 11. Construction of a novel bioreactor for urological tissue-engineering purposes**
N.F. Davis¹, A. Callanan², H.D. Flood¹, T.M. McGloughlin¹ (Department of Urology, Mid-Western Regional Hospital, Dooradoyle, Co Limerick¹, Centre for Applied Biomedical Engineering Research, University of Limerick, Castletroy, Co Limerick², Ireland)
- 12. A positive sentinel node, comparing the use of blue dye versus combined dye-isotope in predicting outcome of axillary clearance in breast cancer**
O.J. Carmody, B. Mahon, K. McSorley, M. Stokes, M. Kell, R. Salman (Breast Health Unit, Mater Misericordiae University Hospital, Eccles St, Dublin 7, Ireland)
- 13. Aortic valve replacement surgery in the elderly—is it worth it?**
S. O’Meara, M. Da Costa, D. Veerasingam (The West of Ireland Cardiac Surgery Unit, Galway University Hospitals, Galway, Ireland)
- 14. Laparoscopic colorectal resections**
K. Culligan, N. Ali, E. Condon (Department of Surgery, Mid-Western Regional Hospital, Dooradoyle, Limerick, Ireland)
- 15. Aortic transection—ten year review of surgical and endovascular management at a tertiary referral centre**
N. Keenan, T. Ni Dhonncchi, M. Shelly, L. Lawlor, J. McCarthy, J. Hurley (Department of Cardiothoracic Surgery & Radiology, Mater Misericordiae Hospital, Dublin, Ireland)
- 16. An audit of paediatric appendectomies in a regional hospital**
K. Zaki, C. Ahern, N. Kelly, S. Tormey (The Mid-Western Regional Hospital, Dooradoyle, Limerick, Ireland)
- 17. The role of CT in mechanical circulatory support imaging**
A. Kinsella¹, R. Regan³, J. McCarthy¹, A.E. Wood¹, L.P. Lawler² (Dept. of Cardiothoracic Surgery Mater Hospital¹, Dept. of Radiology, Mater Hospital², Dept. of Perfusion, Mater Hospital, Dublin, Ireland³)
- 18. Assessing the impact of techniques of wound closure on vascular surgical site infection rates**
T. McVeigh, D. Kovacic, W. Tawfick, S. Sultan (Department of Vascular and Endovascular Surgery, Western Vascular Institute, Galway University Hospital, Galway, Ireland)

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- 19. Mortality following surgical services reconfiguration in the Mid-West**
E.M. Boyle, P. Burke, J.C. Coffey, E. Kavanagh, P.A. Grace, S.R. Walsh (Department of Vascular Surgery, Mid-Western Regional Hospital & Department of Surgery, University of Limerick, Ireland)
 - 20. Impact of ring-fenced surgical beds at Mayo General Hospital—a pilot study**
D. Coyle, A.J. Lowery, R. Waldron, K. Barry (Department of Surgery, Mayo General Hospital, Castlebar, Co. Mayo, Ireland)
 - 21. Early oesophageal cancer: changing treatment trends in an Upper GI (Gastrointestinal) tertiary referral centre over the past decade (2000–2010)**
N.J. O’Farrell, N. Ravi, J.O. Larkin, G. Wilson, C. Muldoon, J.V. Reynolds, D. O’Toole (Department of Surgery & Gastroenterology, Trinity College Dublin, Trinity Centre for Health Sciences, St James’s Hospital, Dublin 8, Ireland)

1. Circulating miRNAs as blood based markers for prostate cancer

B. D. Kelly, N. Miller, G. C. Durkan, K. J. Sweeney, E. Rogers, K. Walsh, M. J. Kerin

Department of Surgery, Clinical Science Institute, National University of Ireland, Galway.

Aim: Mi(cro)RNAs are small non-coding RNAs whose differential expression in tissue has been implicated in the development and progression of many cancers, including prostate cancer. The detection of miRNA in the circulation has resulted in these molecules as new diagnostic target in prostate cancer. The aim of this study was to investigate the expression of a panel of candidate miRNAs in the circulation of prostate cancer patients.

Methods: RNA was extracted from whole-blood samples from 44 patients (25 with biopsy proven cancer and 19 benign samples) attending a prostate cancer screening clinic. Samples were reverse-transcribed using stem-loop primers and expression levels of each of nine candidate miRNAs were determined using real-time quantitative PCR. MiRNA expression levels were then correlated with clinicopathological data and subsequently analysed using qBasePlus software and Minitab.

Results: Circulating miRNAs were detected and quantified in all of the subjects. The analysis of miRNA mean expression levels revealed that circulating levels of the tumour suppressors let-7a ($p = 0.0001$), miR-155 ($p = 0.0001$) along with the oncogenic miR-141 ($p = 0.003$) could clearly differentiate prostate cancer patients from patients with benign disease in a screening setting. A trend towards significance was observed with increasing miR-21 and miR-143 levels and Gleason grade.

Conclusion: Our findings identify an expression profile of miRNA detectable in the blood of prostate cancer patients in a screening setting. This identifies their use as a novel biomarker for prostate cancer along with their potential use as novel markers for disease progression, response to treatment and therapeutic targets.

Conflict of interest: None

Disclosures: Source of Funding—National Breast Cancer Research Institute.

2. The increasing selective use of transhiatal oesophagectomy in the curative approach to localised oesophageal cancer

C. Donohoe, N. Ravi, J. V. Reynolds

Department of Surgery, Institute of Molecular Medicine, Trinity Centre for HealthSciences, St. James's Hospital, Dublin 8, Ireland

Introduction: En bloc trans-thoracic resection (TTO) is the surgical standard of care for locally advanced oesophageal cancer. TTO carries significant operative risks, particularly in higher risk patients, and may be unnecessary oncologically for earlier tumours. Accordingly, in this Unit has increasingly considered a transhiatal approach (TH) for both patients with intramucosal carcinomas and in patients with advanced age and co-morbidity.

Methods: Three time periods were analysed: 1990–1999 [Period (P) I]; 2000–2004 (P2); and 2005–2009 (P3), where 501, 266 and 318 patients, respectively, with oesophageal cancer were treated with

curative intent. All data were prospectively recorded, and key performance indicators and outcomes compared for the most recent period (P3).

Results: TH represented 1.5% of the total oesophagectomy rate during P1, 2.4% in P2 and 11.1% in P3 ($p < 0.05$). Patients undergoing transhiatal oesophagectomy were older (68.46 vs. 63.07 years, $p = 0.002$), more likely to have an early cancer (48.6 vs. 17.6%, $p < 0.001$) and to have an advanced ASA grade (Grade 3: 26.7 vs. 17.3%, $p = 0.025$) than those having other types of oesophagectomy. Indications for surgery included early stage carcinoma ($n = 19$) and advanced age with co-morbidities ($n = 18$).

There was no difference in R0 resection rates (70 vs. 75%, $p = 0.956$). Nodal yields were lower in TH patients (mean 11.39 vs. 19 nodes, $p = 0.009$). The overall complication rate was lower in the TH group (31.6 vs. 44.2%, $p = 0.021$) and there were no post-operative mortalities in the transhiatal group versus the overall 1.7% in-hospital mortality rate for this period ($p < 0.001$). No significant differences were observed in disease-specific survival.

Conclusions: This report shows that the selected use of TH for early oesophageal cancer or in patients with advanced age and co-morbidity is safe and oncologically reasonable and merits increasing consideration in these subgroups of patients.

Conflict of interest: None

Disclosures: None.

3. Melanoma in a regional referral practice

R. Piggott, N. M. McNerney, S. Potter, M. J. Kerin, P. J. Regan

Department of Surgery, Galway University Hospital, Galway

Introduction: Melanoma is the most rapidly increasing malignancy in the western world. The advent of sentinel node biopsy in the staging and treatment in melanoma has necessitated the need for referral of appropriate cases to an appropriate centre. Multidisciplinary team meetings have become an integral part of the management of melanoma and the AJCC guidelines provide the framework for decision making in this forum.

Aim: This study aims to examine the referral patterns, therapeutic trends and clinicopathological variables for melanoma.

Methods: All patients with a diagnosis of melanoma discussed at the skin cancer MDM were included over an 18 month period.

Results: 169 patients were discussed at the MDM meeting over an 18 month period. There was a wide variation in the age of those discussed with 15 patients diagnosed under the age of 30 while 71% of patients were over the age of 50. The head and neck accounted for 31% of melanomas diagnosed with upper limb, lower limb and trunk accounting for 12, 24 and 21 percent, respectively. 23% of patients were T1 according to their Breslow thickness, however, 16 of these 39 patients went on to have a wide local excision and sentinel node biopsy. 12% of patients had stage 4 disease at time of initial staging.

Discussion: The increasing incidence of melanoma presents a significant challenge to a regional referral centre with associated resource implications. The findings of this audit show that a significant number of patients with T1 disease went on to have a sentinel lymph node biopsy in opposition with the AJCC guidelines. These were done due to patient preference, however, two of these biopsies were positive for metastatic melanoma highlighting the unpredictable nature of the disease.

Conflict of interest: None

Disclosures: None.

4. The effect of subtype on local recurrence in breast cancer following breast conserving surgery

A.J. Lowery¹, M.R. Kell², R. Glynn¹, M.J. Kerin¹, K.J. Sweeney¹

Department of Surgery, Galway University Hospital, Galway¹,
Department of Surgery and Eccles Breast Screening Unit, Mater
Misericordiae University Hospital, Dublin²

Introduction: Breast cancer subtype is increasingly considered when planning adjuvant systemic therapy, however, little is known about the effect of subtype on local recurrence in breast cancer. The aim of this study was to systematically appraise the effect of breast cancer subtype on local control following breast conserving surgery (BCS).

Methods: A comprehensive search for published trials that examined outcomes after BCS according to breast cancer subtype was performed using medline and cross referencing available data. Reviews of each study were conducted and data were extracted. Primary outcome was ipsilateral locoregional breast tumour recurrence (LRR) related to breast cancer subtype.

Results: A total of 4,790 patients were identified from trials examining recurrence following BCS according to intrinsic breast cancer subtype; Luminal ($n = 3761$), Her2/neu overexpressing ($n = 252$) and Triple negative ($n = 777$). When LRR was examined in relation to breast cancer subtypes; luminal subtype tumours had a better outcome than both triple negative ([OR] = 0.48; 95% CI: 0.3–0.77) and Her2/neu-overexpressing tumours ([OR] = 0.27; 95% CI: 0.18–0.39). However, patients with Her2/neu overexpressing tumours were more likely to develop recurrence following BCS than triple negative breast cancers ([OR] = 1.72; 95% CI: 1.11–2.65).

Conclusion: Patients with triple negative and Her2/neu overexpressing breast cancer subtypes are at increased risk of developing LRR following BCS. Molecular subtyping is an important consideration when considering local control of breast cancer and may be used to identify those at increased risk of local and regional recurrence who may benefit from more aggressive local treatment.

Conflict of interest: None

Disclosures: None.

5. Factors associated with failure to fast-track in patients undergoing oesophageal cancer resection

J. Sullivan, S.M. McHugh, E. Myers, P. Broe

Department of Surgery, Beaumont Hospital, Dublin 9

Introduction: We have previously demonstrated that a fast track protocol can be safely applied in the setting of oesophageal cancer surgery. Certain patients fail the fast track approach and require intensive care unit (ICU) admission. The aim of this study was to define this subgroup.

Methods: A total of 93 consecutive patients who underwent oesophagectomy for neoplastic disease were identified. Retrospective chart review was undertaken. Ability to tolerate ward based post operative recovery was analysed along with the factors associated with failure to complete same. Statistical analysis was performed using SPSS v17.

Results: Of the 93 patients the male: female ratio was 7:3. Twenty-five patients required direct ICU admission. Of the remaining 68 patients who began a fast-track recovery protocol the subsequent ICU admission rate was 17.5% ($n = 12/68$). Need for peri-operative blood transfusion ($p < 0.001$) was associated with failure to fast-track. Development of respiratory complications such as pleural effusion ($p = 0.019$), respiratory tract infection ($p = 0.006$), or empyema

($p = 0.046$) were also associated as were anastomotic complications such as leak ($p = 0.001$) or failure ($p < 0.001$). However, complications such as surgical site infection, pneumothorax, chylothorax, pulmonary embolism or deep venous thrombosis and recurrent laryngeal nerve palsy were not predictive of failure to fast track. Similarly gender, neoadjuvant therapy, tumour location or histology, or surgical approach were also not found to be statistically significant predictors.

Conclusions: Patients who require a peri-operative blood transfusion and develop early post-operative respiratory compromise are likely to fail the fast track oesophagectomy protocol and should be managed in an ICU setting.

Conflict of interest: None

Disclosures: None.

6. Does carotid endarterectomy (CEA) affect apparent stenosis on the non-operative side?

C. Browne¹, O. Obinwa¹, L. Byrne¹, M. Dillon¹, D.J.H. McCabe^{2,3}, B. Egan¹, T.M. Feeley¹, S. Tierney^{1,4}

Vascular Surgery Unit¹ and Department of Neurology², The Adelaide and Meath Hospital, Dublin incorporating the National Children's Hospital, Trinity College Dublin, Ireland; Department of Clinical Neurosciences³, Royal Free Campus, UCL Institute of Neurology, London, UK; Royal College of Surgeons in Ireland⁴, Dublin, Ireland

Introduction: Previous small studies have suggested that carotid revascularisation may influence measured stenosis in the contralateral (non-operated) carotid artery [1]. Our aim is to assess the impact of CEA on the calculated level of stenosis in the contralateral carotid artery in our patient population.

Methods: Carotid doppler data of all patients who had CEA between 2007 and 2010 in our institution were reviewed. Internal carotid artery peak systolic velocity (ICA PSV) and end diastolic velocities (ICA EDV) were measured pre and post operatively. A stenosis $>70\%$ using consensus criteria² was considered clinically significant.

Results: Complete data was available on 43 of the 89 patients who had CEA during the period. Mean age was 65.2 ± 11.1 years and 27 (62.8%) were males. The number of patients classified as having contralateral stenosis ($>70\%$) was reduced from 7 to 5 (28.6%, $p < 0.001$) post-operatively.

	Pre-op contralateral stenosis			
	$<70\%$ ($n = 36$)		$>70\%$ ($n = 7$)	
	Pre-operative	Post-operative	Pre-operative	Post-operative
Median ICA PSV	95.4	83.5*	400.0	364.0
Median ICA EDV	27.5	22.5*	127.0	71.0*

* cm/s p value < 0.05 (based on Wilcoxon Signed Ranks Test)

Conclusions: Carotid endarterectomy results in a statistically significant reduction in measured carotid velocities and a clinically significant reduction in calculated percentage stenosis on the contralateral side. Contralateral carotids should be re-evaluated after carotid surgery before proceeding with further interventions.

References:

1. Sachar R, Yadav JS, Roffi M, Cho L, Reginelli JP, Abou-Chebl A, Bhatt DL, Bajzer CT (2004) Severe bilateral carotid stenosis:

the impact of ipsilateral stenting on Doppler-defined contralateral stenosis. *J. Am. Coll. Cardiol* 43(8):1358–1362.

- Oates C, Naylor AR., Hartshorne T, Charles SM., Humphries K, Aslam M (2009) Joint recommendations for reporting carotid ultrasound investigations in the United Kingdom. *Eur J Vasc Endovasc Surg* 37(3):251–261.

Conflict of interest: None

Disclosures: None.

7. Nipple sparing mastectomy is an oncologically safe procedure

A.M. Mc Dermott¹, E. Caffrey², C. Brodie², M.J. Kerin¹

Department of Surgery, University Hospital Galway, Newcastle Road, Galway¹, Department of Histopathology, University Hospital Galway, Newcastle Road, Galway²

Introduction: Breast conserving surgery is an appropriate treatment option for early breast cancers, however, some women still require mastectomy. Nipple sparing mastectomy (NSM) is becoming increasingly popular, in selected cases, as retention of the patients' own nipple provides an improved cosmetic outcome. Retroareolar tissue sampling (RAS) may be conducted intra-operatively to ensure oncological safety of this procedure. This study aimed to assess the clinical outcomes of women who underwent NSM with RAS at our institution.

Methods: An analysis was conducted on the prospectively maintained database from 2004 to 2009. All women who underwent RAS at the time of a planned nipple sparing mastectomy were included in the study. Demographic, pathological and clinical data was retrieved.

Results: Seventy-eight patients underwent intraoperative RAS with the aim of preserving the nipple with a NSM. RAS showed benign tissue in 67 of these cases. Seven cases showed malignant change (4 DCIS and 3 invasive carcinoma), for which the nipple was resected intraoperatively. Two further cases were deemed unsuitable for a nipple sparing procedure at the time of the frozen section and the nipple was removed. After a mean follow up of 41.4 months, one woman required nipple removal due to ischaemia. Two of the 69 women who retained the nipple (2.9%) had local recurrences and five women (7.2%) developed metastatic disease.

Conclusion: The rate of retro-areolar nipple involvement in our institution is low (8.9%). NSM with retroareolar sampling shows similar oncological outcomes to total mastectomy and is a safe procedure in selected cases.

Declaration of Interest: None declared

Disclosures: None

Funding: NBCRI.

8. Endovascular aortic repair for elective and urgent thoracic aortic pathologies

A.R. Moriarity, P.A. Naughton, J. O'Donnell, E.A.H. Kheirelsaid, S.N. Haider, M.P. Colgan, V. Young, M. Nolan, E. McGovern, S.M. O'Neill, D.J. Moore, P. Madhavan

Departments of Vascular and Cardiothoracic Surgery, St James's Hospital, James's St, Dublin 8, Ireland

Introduction: Thoracic Endovascular Aortic Repair (TEVAR) has emerged as a less invasive alternative to open thoracic aortic repair.

We report our initial experience with TEVAR treating a number of elective and urgent thoracic aortic conditions.

Methods: All patients who underwent TEVAR from 2005 to 2010 were identified from a prospectively collated database.

Results: Thirty-five patients (21 males, 14 females) had stent-grafts deployed. Mean age was 65 years (range 31–86). Indications for intervention included degenerative aneurysms ($n = 21$), type B thoracic aortic dissections ($n = 7$), traumatic aortic transection ($n = 2$), aorto-oesophageal fistulas ($n = 2$), penetrating thoracic aorta ulcer ($n = 2$) and coarctation of the aorta ($n = 1$). Eighty-three percent of the TEVAR were performed as an elective procedure.

Successful deployment of the stent grafts was achieved in 97 percent of patients. One patient had maldeployment of the stent requiring urgent open conversion and visceral debranching. Median number of stent-grafts was 1 (range 1–5). Lumbar drains were inserted in 12.5% of cases. A total of ten patients required open debranching procedures prior to endovascular intervention.

Twenty-five percent patients had significant complications including stroke ($n = 2$) and spinal ischaemia ($n = 2$). Our 30-day mortality rate was 9.3%. On long-term surveillance three endoleaks were identified; two Type I and one Type III endoleak. There were eight mortalities on 5 year follow-up.

Conclusion: TEVAR is associated with encouraging results but significant challenges are encountered and need to be considered at the time of patient selection for intervention.

Conflict of interest: None

Disclosures: None.

9. Squamous cell carcinoma of the anal canal: ten year experience in a specialist unit

A.C. McArdle, J.O. Larkin, F. Cooke, R.B. Stephens, P.H. McCormick, B.J. Mehigan

Department of Colorectal Surgery, St James's Hospital, Dublin 8

Anal cancer is increasing in incidence due to an increase in its precursor lesion anal intraepithelial neoplasia (AIN) and the associated human papillomavirus (HPV). We retrospectively reviewed our experience with this disease over the 10 years 2000–2009.

31 patients were diagnosed with anal SCC (M:F 24:7; mean age 56.2 years, range 29–83). Nine of twelve male patients tested were HIV positive, with seven already on antiretroviral treatment at diagnosis. Two patients were on long-term methotrexate and one was immunosuppressed post-transplantation. Commonest presenting symptoms were bleeding ($n = 13$) and pain ($n = 12$). A mass was palpable in 22, with SCC arising in a chronic fistula-in-ano in 3. Five patients were previously known to have AIN.

Histologic diagnosis was made in all cases. Staging was by means of CT-TAP in all, MRI pelvis ($n = 24$), with endoanal ultrasound and PET-CT introduced recently. Six patients were node positive at diagnosis (3 N1, 3 N2), none had distant metastases.

Twenty-seven patients were treated by radical chemoradiotherapy (Nigro regimen), three had local excision of anal verge lesions and one infirm, elderly man was managed expectantly. Sixteen patients were defunctioned prior to systemic therapy. One 31 year-old man had abdominoperineal resection after a poor treatment response.

There were four deaths from sepsis post-treatment, three of whom were immunosuppressed. Three patients succumbed to progressive, recurrent disease between 3 and 6 years post-treatment. Two patients are currently alive with recurrence at 4 and 6 years post-treatment,

respectively. Twenty-one patients are alive and disease-free at follow-up between 1 and 10 years.

Anal cancer requires multimodality treatment. Good outcomes are achievable in high-volume specialist centres.

Conflict of interest: None

Disclosures: None.

10. Risk factors associated with the development of Post-thrombotic Syndrome—a systematic review and meta-analysis

A. Noorani¹, S.R. Walsh², U. Sadat¹, J.R Boyle¹, P. D Hayes¹, K. Varty¹

Cambridge Vascular Unit, Addenbrookes Hospital,¹ University of Limerick²

Background: Post thrombotic syndrome (PTS) is a common and devastating consequence of deep vein thrombosis. Identification of risk factors is essential in predicting which patients will benefit most from thrombolysis.

Methods: A systematic review and meta-analysis was conducted to evaluate whether the extent and location of the presenting DVT is associated with development of PTS.

Results: The systematic review resulted in 29 eligible studies. The presence of a four segment DVT was associated with an increased risk of PTS (relative risk 2.07, 95% CI: 1.3–3.28, $p = 0.0021$), compared to a single segment DVT which was associated with a decreased risk of PTS (relative risk 0.45 95% CI: 0.25–0.79, $p = 0.0067$). Regarding DVT location, isolated calf vessel DVT was associated with a reduced risk of PTS (relative risk 0.25, CI: 0.097–0.64, $p = 0.0021$). However, proximal and more specifically ileo-femoral DVT was not associated with an increased risk of PTS (relative risk 1.15, 95% CI: 0.96–1.37, $p = 0.11$ and relative risk 1.095, 95% CI: 0.81–1.43, $p = 0.56$, respectively).

Conclusion: Patients with ileo-femoral DVT are currently the main target group of thrombolysis in ongoing randomized controlled trials, yet this group of patients did not have an increased risk of PTS. Multisegment, in particular four-segment DVT is associated with an increased risk of PTS. This cohort of patients should be considered for thrombolysis in order to improve long term prognosis, though this may be technically challenging to perform.

Conflict of interest: None.

Disclosures: None.

11. Ultrasound-guided core biopsy of axillary nodal metastases can reduce the need for sentinel lymph node biopsies in primary breast cancer patients

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Introduction: Axillary nodal status is an important predictor of prognosis and treatment in patients with breast cancer. Up to 40% of patients undergoing sentinel lymph node biopsy (SLNB) have axillary

metastases requiring a delayed axillary lymph node clearance (ALNC). This study evaluated the sensitivity and specificity of ultrasound-guided core biopsy (AUS-CB) at detecting axillary nodal metastases in patients with primary breast cancer allowing primary ALNC without unnecessary SLNB.

Methods: Records of patients with primary breast cancer presenting to a symptomatic breast unit between January 2007 and June 2010 were reviewed retrospectively. Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) for ultrasonography and percutaneous biopsy were evaluated.

Results: 439 patients were included in the study. 17 patients had bilateral breast cancer resulting in 456 axillae assessed preoperatively. Forty-eight percent ($n = 219/456$) of patients had nodal metastases. Sensitivity, specificity, PPV and NPV for AUS-CB were 53.9, 100, 100 and 70.1%, respectively. Tumour grade, size and the presence of lymphovascular invasion also correlated with nodal metastases. AUS-CB resulted in 118 (53.9%) of 219 node-positive patients avoiding SLNB. Overall, 25.9% of patients were spared the need to undergo an axillary staging procedure.

Conclusion: Ultrasound-guided core biopsy is a safe and effective way of evaluating axillary status in primary breast cancer patients, reducing the requirement for SLNB in over half of patients with nodal metastases and over a quarter of all primary breast cancer patients.

Conflict of interest: None.

12. The impact of high-dose statin therapy, on transendothelial neutrophil migration and serum cholesterol levels in healthy male volunteers

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Statins are commonly used in the prevention of primary and secondary cardiovascular disease through their cholesterol lowering effects. However, they have been shown to have anti-inflammatory properties, which may help to reduce postoperative mortality and morbidity. The purpose of this study was to analyse the in vivo effects of atorvastatin (statin) on ex vivo neutrophil migration in healthy volunteers.

Thirteen healthy male volunteers were consented and placed on high-dose (40 mg) statin therapy for 2 weeks. At week 0 and week 2, full blood count, liver function, serum cholesterol and creatine kinase was assessed in addition to neutrophil migration.

Neutrophil migration of healthy volunteers was significantly reduced after 2 weeks of high-dose statin therapy, as was their serum cholesterol. There was no change in liver function of any volunteer while on the statin treatment.

Statins have an established role as cholesterol lowering agents; this study also demonstrates a potential anti-inflammatory effect in healthy male volunteers. This warrants further investigation in a patient population. It may represent a potential therapeutic intervention for patients undergoing any type of surgery or trauma who are at

risk of systemic inflammatory response syndrome.

Conflict of interest: None to report Funding supplied by Irish Heart Foundation

Disclosures: Atorvastatin for volunteers provided by Pfizer.

13. Toll like receptor 4—a double edged sword between host defences and cancer cells

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Toll-like receptor 4 is a member of a family of pattern recognition receptors that are involved in defences against infection. In the cancer microenvironment, emerging controversial evidence suggests that TLR4 has a role in tissue homeostasis by regulating inflammation and tissue repair. Thus far, studies have predominantly focused on the effect of TLR4 in cancer cells; however, this study focuses on TLR4 in both host immune system and cancer cells.

3 × 10⁵ murine mammary adenocarcinoma 4T1 cells and 4T1 cells deficient of TLR4 by lentivirus transduction were inoculated into female wild type (WT) and C.C3-Tlr4Lps-d/J (TLR4^{-/-}) mice by mammary pad injection and divided into a control and a primary tumour resection group. Tumour growth, tumour body weight ratio, lung metastasis and survival of tumour bearing mice were observed.

There was a significant increase in tumour volume on the 2nd, 3rd and 4th week after inoculation of the TLR4^{-/-} mice with 4T1 cells compared to WT ($P < 0.001$, 0.008 and 0.006, respectively). The numbers of metastatic lung nodules were significantly higher in the TLR4^{-/-} mice ($P < 0.02$). Survival of TLR4^{-/-} mice was reduced compared to WT ($P < 0.02$). The knock down of the TLR4 from 4T1 cells led to a synergistic increased in tumour volume and significant reduction of metastasis in TLR4^{-/-} 4T1 cells compared to normal 4T1 cells ($P < 0.001$).

TLR4 has a protective role in this murine metastatic breast tumour model at host level and adverse role at cancer cell level. Thus, by targeting TLR4 a novel approach in breast cancer treatment can be evaluated.

Conflict of interest: None

Disclosures: None.

14. Analysis of margin index as a method for predicting residual disease following breast-conserving surgery in a national cancer centre

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Introduction: Breast-conserving surgery (BCS), followed by appropriate adjuvant therapies is established as a standard treatment option for women with early-stage invasive breast cancers. A number of factors have been shown to correlate with local and regional disease recurrence. Although margin status is a strong predictor of disease recurrence, consensus is yet to be established on the optimum margin necessary. Margenthaler et al. [1] recently proposed the use of a 'margin index', combining tumour size and margin status as a predictor of residual disease following BCS. We applied this new predictive tool to a population of primary breast cancer patients presenting to a symptomatic breast unit to determine its suitability in predicting those requiring re-excision surgery.

Methods: Retrospective analysis of our breast cancer database from January 1, 2006 to June 30, 2010 was performed, including all patients undergoing BCS. Of 313 patients undergoing BCS, 24.9% ($n = 78/313$) required further re-excision procedures, with 35 eligible for inclusion in the study. Margin index was calculated as: margin index = closest margin (mm)/tumour size (mm) × 100, with index >5 considered optimum.

Results: Of the 35 patients included, 34.3% ($n = 12/35$) had residual disease. Fisher's exact test showed margin index not to be a significant predictor of residual disease on re-excision specimen ($p = 0.7247$). Of note, a significantly higher proportion of our patients presented with T2 tumours (66 vs. 38%).

Conclusion: Although an apparently elegant tool for predicting residual disease following BCS, we have shown it is not applicable to a symptomatic breast unit in Ireland.

Reference: Margenthaler JA, Gao F, Klimberg VS. Margin Index: a new method for prediction of residual disease after breast-conserving surgery. *Ann Surg Oncol*. 2010. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/20422459>

Disclosures: none.

Conflict of interest: none.

15. Trastuzumab promotes signalling through the endocrine pathway in ER-expressing breast cancer cells lines

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The mechanism underlying resistance to trastuzumab is unknown with various methods proposed including crosstalk between the growth factor signalling pathway and endocrine pathway.

This study aims to elucidate the effect of trastuzumab on the endocrine pathway in breast cancer cells using the ER target gene pS2 to demonstrate activity. Translational studies were performed in a select patient cohort to investigate for clinical implications.

Oestrogen dependent, tamoxifen sensitive MCF-7 (low HER2) and oestrogen independent, tamoxifen sensitive LCC-1 (high HER2) breast cancer cells were treated with trastuzumab. Western blotting revealed an increase in ER ± protein levels in MCF-7 cells which was not observed in LCC-1 cells. Semi-quantitative RT-PCR was performed on MCF-7 and LCC-1 cells treated with estradiol, tamoxifen and trastuzumab to quantify pS2 mRNA levels. The impact of treatments on pS2 promoter activity was assessed using luciferase assay. Increases in pS2 mRNA were found in MCF-7 cells treated with trastuzumab but not LCC-1 cells, which was also observed at a transcriptional level. Immunohistochemistry revealed increased pS2 staining in a cohort of patients who received trastuzumab prior to surgery, indicating increased activity of the endocrine pathway.

We have shown that at mRNA and transcriptional levels, treatment of oestrogen dependent cells with trastuzumab results in upregulation of the endocrine pathway, with corresponding increases in ER ± protein levels, a potential mechanism for trastuzumab resistance. This finding was replicated in a small clinical cohort. Treatment of breast cancer needs to consider bidirectional crosstalk between steroid and growth factor pathways to minimise the development of resistance.

Conflict of interest: none

Disclosures: none.

16. IGF1 axis expression correlates with obesity status in oesophageal cancer patients

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Introduction: Obesity has been strongly implicated in the pathogenesis of oesophageal adenocarcinoma. In this context, the insulin-like growth factor (IGF-1) axis warrants exploration.

Methods: Samples from 220 patients diagnosed with oesophageal adenocarcinoma with prospective clinicopathological, follow-up and obesity status data were collected. Visceral adiposity was defined by waist circumference (WC) or visceral fat area (VFA). ELISA was used to measure levels of free IGF1 in serum ($n = 100$) and of circulating total IGF1 levels using an acid precipitation pre-treatment ($n = 24$). mRNA expression of IGF1R and IGF1 was determined by qPCR in resected tumour samples ($n = 70$). Immunohistochemistry (IHC) determined IGF-1R expression in tissue microarrays (TMA; $n = 161$).

Results: There was a significantly increased total and free IGF-1 level in the serum of viscerally obese patients. Gene expression analysis revealed positive significant correlations between IGF1R and IGF1 in tumours and obesity status ($p < 0.05$). IGF1 levels correlated moderately IGF1R expression ($\dot{A} = 0.465$, $p = 0.001$). In resected oesophageal tumour TMA sections, mean IGF1R expression was higher in viscerally obese patients ($p = 0.023$). Disease-specific survival was longer in patients with positive IGF1R expression versus negative tumours (65.1 vs. 22.4 months, $p = 0.064$).

Conclusion: This study suggests an important role for the IGF axis in oesophageal adenocarcinoma and a relationship between the IGF axis and obesity status. Phase I trials of IGF axis inhibitors may be indicated in these patients.

Conflict of interest: None

Disclosures: None.

17. A characterisation of mucin expression in the inflamed versus healthy colon

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We aimed to characterise sulphomucin and sialomucin expression in the acutely inflamed colon in patients with ulcerative colitis (UC) compared with healthy controls. We then correlated this data with histological parameters that reflect mucosal inflammation.

Following ethical approval and informed consent, mucosal biopsies were harvested at 6 levels throughout the colon from patients with acutely inflamed UC ($n = 8$) and healthy controls ($n = 15$). Sulpho- and sialomucin levels were evaluated by staining in 1% alcian blue, 3% acetic acid (pH 2.5) and high iron diamine. Sulphated mucins (sulphomucins) stain brown/black and carboxylated mucins (sialomucins) blue and were scored as previously described [1]. The expression levels of the mucins were correlated with underlying mucosal inflammation. Using standard H&E histology, mucosal

inflammation was scored according to a method described by Goebes et al. [2]. The expression levels of the mucins were correlated with underlying mucosal inflammation.

In healthy controls there was a predominance of sulphated mucins throughout the colon as would be expected (Table 1). Interestingly in the acute specimens with a high mucosal inflammatory score (5) there is an emergence of carboxylated type mucin with four specimens showing a predominance of sialomucins and eight showing equal mucin distribution. This pattern is not seen in the healthy cohort.

Conclusion: In the acutely inflamed colon there is a progression to small bowel type carboxylated mucins.

References:

1. Bambury N., Coffey J. C., Burke J., Redmond H. P., Kirwan W. O. Sulphomucin expression in ileal pouches: emerging differences between ulcerative colitis and familial adenomatous polyposis pouches. *Dis Colon Rectum*. 2008, 51(5):561–567.
2. Geboes K., Riddell R., et al. A reproducible grading scale for histological assessment of inflammation in ulcerative colitis. *Gut*. 2000,47:404–409.

Conflict of interest: None

Disclosures: None.

Table 1

Acute ulcerative colitis						
H&E score						
HID Score	0 n (%)	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)
1 (n = 4)	0	0	0	0	0	4 (100)
2 (n = 17)	4 (23.5)	0	0	0	5 (29.4)	8 (47.1)
3 (n = 16)	5 (31.3)	0	2 (12.5)	1 (6.3)	3 (18.8)	5 (31.3)
Healthy controls						
H&E score						
HID Score	0 n (%)	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)
1 (n = 2)	2 (100)	0	0	0	0	0
2 (n = 4)	4 (100)	0	0	0	0	0
3 (n = 58)	52 (89.7)	0	3 (5.2)	3 (5.2)	0	0

18. Decellularised xenografts as potential bladder augmentation scaffolds: An animal trial

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Introduction: Surgical treatment of end-stage bladder disease frequently involves augmentation with autogenous gastrointestinal tissue. However, mucus secreting epithelium within the genitourinary tract is associated with many debilitating long-term complications. We describe an alternative approach by replacing defective bladder tissue with tissue-engineered porcine xenografts.

Methods: A partial cystectomy was performed on female Sprague–Dawley rats under sterile conditions. Each cystectomy defect was repaired with decellularised porcine urinary bladder matrix (UBM) scaffolds and tissue regeneration was evaluated by gross histology at 0, 3, 5 and 7 days. Additionally, immunohistochemistry was per-

formed to assess the formation of an endothelial layer and smooth muscle layer by staining for the presence of von Willebrand factor and SMC actin, respectively.

Results: All UBM scaffolds were successfully implanted into each cystectomy defect. At days 0, 1 and 3 cellular infiltration was confined to the periphery of the implanted scaffold. However, the scaffold's centre stained positive for urothelial and smooth muscle cells at day 5. Histological evaluation at day 7 demonstrated a confluent monolayer of urothelial cells along the luminal surface of the scaffold and disorganised smooth muscle cells infiltrating the abluminal surface.

Conclusions: Implantation of tissue-engineered xenogenic scaffolds into the urinary bladder is technically feasible and may prove a viable surgical alternative to gastrointestinal tissue for bladder reconstructive purposes.

Conflict of interest: None

Disclosures: None.

19. Pre-operative neutrophil-lymphocyte ratio predicts survival following major vascular surgery

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Background: The systemic nature of atherosclerosis compromises medium-term survival following major vascular surgery. Neutrophil-lymphocyte ratio (NLR) is a simple index of systemic inflammatory burden which correlates with survival following percutaneous coronary intervention.

Methods: Patients undergoing elective major vascular surgery in two tertiary vascular units were identified from prospectively maintained databases. Factors associated with two-year mortality were assessed by univariate and multivariate analyses.

Results: Over a four-year period, 1,021 patients underwent elective major vascular surgery (carotid endarterectomy, abdominal aortic aneurysm repair, lower limb revascularisation). Two-year mortality was 11.2%. In multivariate analysis, preoperative NLR > 5 was independently associated with 2-year mortality (multivariate odds ratio 2.21; 95% CI: 1.22–4.01).

Conclusion: Pre-operative NLR identifies patients at increased risk of death within 2 years of major vascular surgery. This simple index may facilitate targeted preventative measures for high-risk patients.

Conflict of interest: None

Disclosures: None.

20. ER stress in colorectal cancer

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Introduction: Colorectal cancer (CRC) is one of the leading causes of cancer related mortality in the western world. Current CRC treatment paradigms are surgery ± adjuvant chemotherapy. Poor clinical outcomes are associated with late stage diagnosis and inefficient patient

selection for adjuvant therapies. The endoplasmic reticulum (ER) is the site of synthesis and folding of cellular proteins. Accumulation of unfolded/misfolded proteins can lead to ER stress, triggering a coordinated cellular response to restore homeostasis or induce apoptosis.

Aims: The aim of this study was to examine the role of ER stress proteins calnexin, calreticulin, GRP78 and GRP94 as biomarkers in CRC.

Method: Western blotting was used to determine the expression of ER stress proteins in tumours and matched normal tissue from 27 Dukes B ($n = 9$) and C ($n = 18$) patients with positive (no CRC recurrence/mortality; $n = 18$) and negative (CRC recurrence/mortality; $n = 9$) disease outcome. Univariate statistical analyses were carried out in order to determine whether differential protein expression is associated with disease stage or clinical outcome.

Results: Western blot analysis indicated calnexin over expression in 16/27 tumours compared to matched normal tissue. In patients with a negative clinical outcome calnexin was significantly over expressed, with 8 of 9 patients demonstrating elevated expression in tumour tissue ($p = 0.009$). Calnexin over expression (T/N) correlates with over expression of the ER stress marker calreticulin but not Grp78 and Grp94.

Conclusion: Calnexin may represent a new prognostic marker for CRC patient outcome.

Conflict of interest: None

Disclosures: None.

21. MiR-195 as a minimally invasive biomarker for breast cancer

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Introduction: Over the past decade marked advancement in the molecular classification of breast tumours has been made. The focus of attention is now on the development of sensitive minimally invasive biomarkers to both diagnose and monitor this prevalent disease. Mi(cro)RNAs are a group of small non-coding RNA fragments that are detectable in the circulation and aberrantly expressed in the cancer state. Our group has shown the potential of miR-195 in its ability to discriminate between patients with breast cancer, and those with other cancer types or controls (1). The aim of this study was to further investigate the biomarker potential of miR-195 in a population of breast cancer cases, controls and benign breast disease.

Methods: Preoperative whole blood samples were obtained from 279 individuals comprised of those with breast cancer, benign breast disease and controls. RNA was extracted, and real-time quantitative PCR was used to determine the expression levels of miR-195.

Results: The mean age of the cancer and control group were 55 and 58 years, respectively. The mean age of benign breast disease cases was 49 years. Using two sample t tests, miR-195 was found to be significantly higher in cancers compared to controls ($p < 0.05$). miR-195 was also increased in cancers compared to those with benign breast disease ($p < 0.05$).

Conclusion: This study validates the potential of miR-195 as a minimally invasive biomarker. Its ability to distinguish cancer from both benign disease and true controls emphasizes its promising future in both screening and monitoring of breast cancer.

Reference:

1. Heneghan H. M. et al., Circulating microRNAs as Novel Minimally Invasive Biomarkers for Breast Cancer, *Ann Surg.* 251(3):p. 499–505

Conflict of Interest: None.

Disclosures: None.

Funding: NBCRI.

22. The role of minimally invasive parathyroidectomy in patients with familial primary hyperparathyroidism?

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Introduction: Patients with familial primary hyperparathyroidism frequently undergo subtotal or total parathyroidectomy for perceived 4-gland parathyroid hyperplasia. Controversy remains whether a minimally invasive parathyroidectomy (MIP) is appropriate in this setting, when localization studies are positive for a single parathyroid adenoma.

Methods: All patients who underwent a MIP were identified from prospectively maintained databases at two institutions. The presence of a family history of hyperparathyroidism in a direct relative was confirmed by chart review. Patients with and without a family history of hyperparathyroidism were compared with regard to overall complications, recurrence and cure rates.

Results: A total of 1,763 patients were identified. Thirty-four patients had a positive family history, with a mean age of 61 years. There was no statistically significant difference in age, gender, pre-operative biochemistry, gland weight or the overall complication rate between groups. The cure rate at 6 months from a single operation was equivalent between the two groups (97 vs. 99%). At 11 years follow-up, the recurrence rate, however, was slightly higher in those with a family history compared to those without (12 vs. 3%; $p = 0.007$). Importantly, re-operation was successful in the small population of familial patients who did present with recurrent hyperparathyroidism.

Conclusions: The vast majority of patients with familial primary hyperparathyroidism who underwent a MIP were surgically cured. Although the long-term recurrence rate is slightly higher compared to patients without familial disease, these data suggest that familial primary hyperparathyroidism alone should not be a contraindication to MIP.

Conflict of interest: None.

Disclosures: None.

23. West of Ireland facial injury study

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The pattern, presentation and volume of facial injury in the west of Ireland is subjectively different to that in the United Kingdom. There has been no prospective regional study of facial injury in Ireland to date. The epidemiology of facial trauma is important in service development, clinician education and training, EWTD as well as injury prevention and health promotion.

Multi-centre prospective data collection was undertaken for 1 week within all emergency departments in the West of Ireland. All patients attending with facial injuries were included. The proforma recorded demographic information, details of injury, presentation and follow-up.

325 patients with facial injuries presented over the week out of 6,100 emergency department attendances. The male:female ratio was 68:32. The mean age of all patients was 29.8 years. 50% of injuries occurred in the 15–45 age group. 73% of these injuries were severe. 22.5% of injuries were associated with alcohol consumption. 29% of

injuries were due to sport. 46.8% of injuries were treated in the emergency department. The busiest period of facial injury presentation was the 24 h from Saturday at 0900. 74% of patients who had alcohol involved in their injury presented on Saturday, Sunday and Monday. 45% of patients presented to emergency departments between 1 and 2 h after injury occurred.

Differences between the UK and Ireland will be discussed. Due to the aetiology, different avenues may be required for injury prevention. Emergency Department staff will need training in this area.

Conflict of interest: None.

Disclosures: Supported by a Research Grant Award from Tekno Surgical, Ireland for 2500 Euro.

24. The accuracy of HIPE with regards the recording of tracheostomies

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Tracheostomy is a relatively common procedure often performed on complicated patients with multisystem illness. These patients are usually in a high dependency or intensive care situation and result in significant costs to the local health service. Government funding of hospitals is partly predicated by the complexity of care and procedures carried in that individual institution. Tracheostomy therefore has an economic value and it is of considerable importance that the operation is captured by the hospital data system. As with any procedure carried out in Irish hospitals, the operation should be recorded by the Hospital in-patient enquiry (HIPE) system. The aim of this study was to determine the accuracy of such data retrieval with regard to tracheostomy by comparing the surgical and ICU information with HIPE. A retrospective analysis was performed of all theatres in the Mid-Western Regional Hospital, Limerick inclusive, of the Surgical Registers and ICU daily log book to identify the number of tracheostomies performed from 1st July 2009 to the 31st June 2010. This was then cross referenced with the HIPE data recording of tracheostomies for this time period. Between 1st July 2009 and 31st June 2010 a total of 43 patients had a tracheostomy performed. Surgical tracheostomies accounted for 21, and there were 22 percutaneous tracheostomies. 19 tracheostomies were recorded by the HIPE system. Improved techniques are required to prevent the discrepancy between the HIPE data and tracheostomy procedures.

Conflict of interests: None.

Disclosures: None.

25. An epidemiological study of patients admitted to hospital with infectious mononucleosis and bacterial tonsillitis, with a particular focus on the length of stay, over a 20-year period

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Bacterial tonsillitis (BT) and infectious mononucleosis (IM) are the two most infective causes of sore throats. Anecdotally IM is the more

severe infection requiring a longer hospital stay. However there is very little in the literature comparing the epidemiology of the two, and in particular the length of stay in hospital. The aim of our study was to compare the epidemiology of BT and IM and in particular the difference in length of in hospital stay between the two. Patients admitted with infectious mononucleosis and acute bacterial tonsillitis, between 1990 and 2009 inclusive were analysed. There were a total of 3,435 cases over the 20 years, 3,064 were BT and 371 were IM. Length of stay (LOS) was tested between diseases and the distribution was positively skewed. The mean LOS for BT was 3.22, median 3, SD 1.54 and range 1–19. The mean LOS for IM was 4.37, median 4, SD 2.37 and range 1–15. The median LOS's were tested between the conditions using the Mann–Whitney *U* nonparametric test with the average LOS of those with BT being significantly lower than those with IM ($p < 0.001$). Mean LOS was significantly different between ages ($p < 0.001$). Means tended to increase with age. Mean LOS was significantly different between genders ($p = 0.011$). The mean LOS for males was 3.76 and for females it was 4.03. Both IM and BT affect young adults, with IM patients tend to be younger. Infectious mononucleosis requires a significantly longer stay in hospital than bacterial tonsillitis.

Conflict of interests: None.

Disclosures: None.

26. Safeguarding medical literature

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Objective: There are multiple mediums to publish research. Within the medical profession the importance of publishing regularly is stressed. As numbers of publications increase is there a risk that ethical breaches will increase? Liz Wager ET all composed a questionnaire on this topic and forwarded it to the editors in chief of one publishing house. Based on their conclusions we replicated the study with editors in chief of otolaryngology related journals.

Methods: With the consent of the author we used the same questionnaire. Pubmed was used to produce a list of journals. A questionnaire and pre-paid envelope was sent to each editor. The questionnaires were anonymous and two reminders at monthly intervals were posted.

Results: 60 letters were sent with a 25% response rate. One editor e-mailed to explain his journal was not suitable for the study. 79% of editors felt plagiarism and redundant publications were the biggest problems they faced but 86% felt confident in dealing with these issues. Despite various guidelines on publication ethics 57% of editors are guided by other journals in these matters.

Conclusion: Maintaining high standards in medical literature is of utmost importance and to achieve this authors and editors need to have systems to identify and deal with breaches. A further questionnaire focusing on proposed penalties for breaches would be the logical progression for this study.

Reference:

1. Wager E et al. (2009) Science journal editors' views on publication results of an international survey. *J Med Ethics* 35:348–353.

Conflict of interest: None.

Disclosures: None.

27. 'Two week rule' referrals for suspected head and neck cancer: an audit of clinical effectiveness

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The NHS Cancer Plan specifies targets for cancer management in Northern Ireland and Great Britain and guarantees hospital outpatient appointments within 2 weeks of GP referrals being made for suspected cancer. This study aims to assess the effectiveness of the 'two week rule' pathway for suspected head and neck malignancy by examining the referral pattern and yield of significant pathology in a regional cancer network.

Suspected head and neck cancer referrals to otolaryngology departments were audited in two district general hospitals over the first quarter of 2010. Data was gathered through a retrospective review of patient charts including GP letters, clinical notes, clinic letters and electronic databases supplemented by radiological and histopathological data.

114 referrals were made via the fast-track pathway. All patients received initial outpatient appointments within the stipulated time frame. 17 referrals (14.9%) were made without the national suspected cancer referral proforma. The most common referral reasons were 'persistent hoarseness >6 weeks' (47 patients, 41.2%) and 'unresolving neck masses >3 weeks' (34 patients, 29.8%). Several referrals were inappropriate. 55 patients (48.2%) required no investigation and only 6 patients (5.3%) were found to have underlying malignancy.

Most patients with head and neck cancer are not referred via the fast-track pathway. The system has good intentions but whether there are overall patient benefits is controversial: the pathway may actually lengthen the time from referral to initial consultation for most cancer patients. A review of the referral criteria and GP education may help improve the system's efficiency.

Conflict of interest: none.

Disclosures: none.

28. Radio-guided parathyroidectomy: "a marvel of modern endocrine surgery or a superfluity that can no longer be afforded?"

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Introduction: Parathyroid adenoma accounts for 85% of cases of hyperparathyroidism. In cases where the patient is suitable for operative intervention, surgery offers a cure for symptomatic hypercalcaemia and its resulting complications, and relieves the inherent economic burden caused by any such condition.

Radio-guided surgery is felt to help reduce trauma of the operative procedure by directing the surgeons exploration to the precise area, and therefore minimising dissection and therefore minimising the operative duration.

Technetium is the radio-isotope of choice used for such procedures and its manufacturers list a number of severe adverse reactions including grand-mal seizures, anaphylaxis and death.

Methods: We utilised our prospectively created database to extract all cases of parathyroid surgery from July 2008 until December 2010.

Indication for surgery, operative approach, operative time, gender, age and utilisation of radio-guidance were collated, and data analysed using Minitab.

Results: Over the 30 month period, one surgeon undertook parathyroid procedures on 66 patients: including 33 minimally invasive video assisted (MIVA) parathyroidectomies, 17 open parathyroidectomies, 7 MIVA converted to open, and 9 combination procedures. All procedures were performed for treatment of symptomatic primary hyperparathyroidism. Thirty-two patients had their procedure performed with radio-guidance, and 34 had the procedure performed without. Procedures were performed on 21 Men and 45 women, median age was 53 years, and mean operating times for both groups was 110 min in procedures performed with radioisotope localisation, and 112 min in procedures performed without radioguidance.

Conclusion: The results of this study clearly demonstrate that the use of technetium-99 radio-isotope and gamma counter use for intra-operative localisation of parathyroid adenoma does not affect operative times. However, its use does add to the patients morbidity risk as well as to the burden on hospital resources.

Conflict of interest: None.

Disclosures: None.

29. Current practice of ENT Surgeons: advice regarding length of time to refrain from contact sports after treatment of nasal fractures

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The advice that is given to patients after the treatment of nasal fractures with manipulation under anaesthesia (MUA) often differs between consultants. The aim of our study was to examine current practice in this area of consultant ENT surgeons in Ireland and the United Kingdom. We have sent a postal questionnaire to consultant ENT surgeons in Ireland and the United Kingdom. They were asked what advice they gave to patients about the length of time that they should refrain from contact sports after a nasal fracture. We are waiting for the feed back from the letters. Anecdotal evidence suggests that advice given to the patients after the treatment of fractures varies widely. Most consultants base their advice on traditional practice and common sense. No widely accepted evidence-based guidelines exist about post-operative advice concerning duration of avoidance of contact sports after MUA of nasal fractures.

Conflict of interest: None.

Disclosures: None.

30. Chin projection preferences for the female Caucasian

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Purpose: The preference for chin projection has long been a matter of debate in aesthetic surgery. We therefore undertook a population

study to determine the preference for chin projection for the female Caucasian chin.

Methods: Lateral profile photographs of ten models were taken under standard conditions in forward gaze. Chin projection in the original photograph was neutral, and the photographs were altered to include one with a recessive, 'weak' chin and one with a more prominent, 'strong' chin. Participants in the study were shown three photographs of each of the ten models. 100 male and female participants were recruited to the study and indicated their preference for chin projection for each of the models. Freidmans two-way analysis of variance by ranks was used for analysing the results.

Results: Both male and female participants surveyed indicated an overall, and statistically significant, preference for either a normally-projected or a strong chin.

14.3% of women surveyed indicated a preference for a weak chin compared to 37.5% for a normally-projected chin and 48.2% for a strong chin ($p = 1.2 \times 10^{-10}$).

17.9% of men surveyed indicated a preference for a weak chin compared to 41.7% for a normally-projected chin and 40.4% for a strong chin ($p = 2.8 \times 10^{-9}$).

Conclusion: Chin projection influences how we perceive facial beauty. Variances in chin projection affect our perception of the nose, for example, microgenia may give the false illusion of over-projection in a normally projected nose. This study shows a distinct preference for a normally projected or strong chin for the female Caucasian. Some participants in the study commented on how photographs with the recessive chin, gave an impression of a pointy, 'bird-like' nose.

Conflict of interest: None.

Disclosures: None.

31. Preferences for the nasal supratip break

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Purpose: The optimum nasal profile, in particular the supratip break (STB), has long been a matter of debate in aesthetic surgery. There is little published in the literature on preferences for the STB. We therefore undertook a population study to determine the preferred angulation of the STB.

Methods: Lateral profile photographs of 10 models were taken under standard conditions in forward gaze. The angulation of the STB was altered in one of the photographs of each model, so that one photograph had a subtle angulation of the STB and the other had a more marked angulation. Participants in the study were shown 2 photographs of each of the 10 models. 100 male and female participants were recruited to the study and indicated their preference for the nasal tip for each of the models. Statistical analysis was performed using the Wilcoxon signed-ranks test.

Results: Overall, there was a statistically significant preference for lateral profile photographs showing a nasal tip with a very subtle angulation of the STB.

Conclusions: With the lack of evidence-based literature for the most aesthetic configuration of the STB following rhinoplasty, this study provides strong evidence that a subtle STB in the Caucasian female is most favourable.

Conflict of interest: None.

Disclosures: None.

32. Can bladder emptying efficiency, a measure of post-operative bladder function, be transferred to the post-natal ward?

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The aim of this study was to assess the role of emptying efficiency (EE)—a measure normally used to assess bladder function post-operatively—in the identification and management of women with postpartum urinary retention (PUR) and persistent postpartum urinary retention (PPUR). PUR is a recognised complication after childbirth [1]. Prompt identification improves prognosis. However, there is no agreed method of diagnosis. PUR may proceed to PPUR which is associated with long-term bladder dysfunction. To our knowledge, EE has never been used in the diagnosis and monitoring of PUR and PPUR.

This is a prospective 2 month study comprising 130 women with vaginal deliveries. The voided volume (VV) in one void was measured, the post-void residual (PVR) was estimated by scanning the bladder, and EE was calculated using the formula $VV/PVR + VV \times 100$. Women were scanned 3–48 h postpartum. We defined PUR as $EE < 75\%$ or $PVR > 150$ ml at or after 6 h postpartum.

14.6% of women were identified as having PUR ($n = 19$). 2.3% ($n = 3$) required intermittent catheterisation. Epidural analgesia doubled the risk of PUR (p value 0.001).

The advantage of using EE as a measure of emptying difficulty is its simplicity and clinical relevance [2]. In particular, it identifies mothers without obvious postpartum urinary symptoms with the potential to expedite their management and thus avoid PPUR and possible permanent bladder dysfunction. With further numbers we hope to define a role for bladder scanning in the routine management of selected women postpartum.

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Conflict of interest: None.

Disclosures: None.

33. Sentinel node biopsy following a preoperative diagnosis of ductal carcinoma in situ (DCIS) in the management of screen detected cancer

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Background: Sentinel node biopsy has an essential role in the prognostication of invasive breast cancer. It's role following a

preoperative diagnosis of in situ breast cancer (DCIS) is controversial. Although a proportion of preoperatively diagnosed DCIS is subsequently determined to be invasive, these tumours tend to be small and the incidence of metastatic disease in this setting is vanishingly small.

Aims: The aims of this study were to describe the incidence of invasive breast carcinoma following therapeutic surgery for screen detected DCIS and to identify factors that may predict areas of invasion, thus facilitating the performance of a sentinel node procedure at initial surgery. The incidence of metastatic disease among those invasive cancers was also recorded.

Methods: All patients diagnosed with DCIS on core biopsy pre-operatively following screening mammogram from November 2007–2010 were identified from a prospectively maintained national database. The dataset was interrogated for patient demographics, and tumour radiological and histopathological features.

Results: In total there were 446 patients diagnosed with DCIS in Breastcheck during the study period. Overall there was a reported incidence of subsequent invasion on pathological assessment of surgical specimens of 30% ($n = 134$). Features that were associated with an increased incidence of subsequent invasion were large mammographic size or a palpable mass and comedo necrosis/high grade on histopathological analysis. There were no cases of metastatic disease in this cohort of patients.

Conclusions: Sentinel lymph node assessment is not indicated in all cases of screen detected DCIS. There are preoperative characteristics that are predictive of invasion at therapeutic resection, however, the absence of metastatic disease in this series would suggest that sentinel node could be avoided even with operative confirmation of invasion.

Conflict of interest: None.

Disclosures: None.

34. Endovascular versus open repair of abdominal aortic aneurysm—a single centre experience

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For suitable patients, EVAR offers reduced perioperative mortality, reduced hospital and ICU stay and reduced costs.

Endovascular aneurysm repair (EVAR) is associated with improved perioperative morbidity but no difference in 8-year outcomes when compared to open repair. We examined perioperative outcomes in a single centre over a 3-year period.

Data on abdominal aortic aneurysm (AAA) repair was retrospectively audited from theatre logbooks, HIPE records and a prospectively recorded database over a 3 year period from 2007 to 2009. During this period all patients with AAA with favourable anatomy were offered endovascular repair.

Between 2007 and 2009, 57 patients underwent EVAR, of which 40 were asymptomatic and 17 were symptomatic. One patient was a redo repair for a Type 3 endoleak, 1 patient had a ruptured external iliac artery during procedure and had a delayed repair and there was one conversion to open repair. Analysis was on an intention-to-treat basis. 41 patients underwent open repair in the same time period, but 17 of these were elective. Postoperative length of stay (POLOS) and ICU bed usage was significantly shorter when elective open and EVAR cases were compared. This compensates for the more expen-

	EVAR		All EVAR N = 57	Open repair		All open N = 41
	Asymptomatic N = 40	Symptomatic N = 17		Elective N = 17	Emergency N = 24	
Median POLOS (range)	5 (2–14)	5.5 (2–49)	5 (2–49)	16 (1–243)	23 (0–112)	18 (1–243)
Median ICU days (range)	0 (0–5)	0 (0–6)	0 (0–5)	4 (0–53)	10.5 (0–34)	7 (0–53)
Inpatient mortality/%	0 (0%)	2 (11.8%)	2 (3.5%)	2 (11.8%)	6 (25%)	8 (19.5%)
Median cost of stay/euro	4000	4,400	4000	20,800	39,400	28,400

sive graft used in EVAR compared with open repair. (8,500 euro vs 689 euro (bifurcated graft) respectively).

Conflict of interest: None.

Disclosures: None.

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35. Auxiliary sentinel lymph node biopsy: a mid-western experience

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Introduction: The Sentinel Lymph Node Biopsy (SLNBx) is an established method for staging the axilla in early breast cancer.

The aim of this study is to assess the practice of SLNBx within the Breast Unit at MWRHL.

Methods and materials: Theatre Lists from June 2009 to September 2010 were reviewed for those who had SLNBx performed and medical notes were analysed for the data required.

Results: 134 patients were scheduled for an axillary procedure in the time period, 101 were scheduled for SLNBx. 7 were converted to ANC on the basis of non-localisation with either tracer. 85 SLNBx were performed in all, 4 bilaterally.

All patients were female whos ages ranged from 30 - 86 years, with a mean of 57 yrs. SLNBx were performed with 61 wide-local excisions, 23 mastectomies and 1 standalone procedure in advance of reconstruction.

100% localized with blue dye. 97% were given preop 99mTc and 71% showed Tc-localisation.

286 nodes were harvested across all procedures, the breakdown being: 35 Hot nodes (12%), 38 Blue nodes (13%), 170 hot and blue (59%) and 43 Axillary nodes (16%). The average number of nodes was 3.3. 35 patients were missing data on "counts".

10% of lymph nodes were positive for metastases, affecting 23 patients. The majority of tumours were of ductal type. 5 of 21 delayed ANCs showed positive nodes (6%). No evidence of recurrence to date.

Summary: 27% of patients had positive sentinel nodes with subsequent definitive management and no recurrence to date.

No Conflict of interest.

No Disclosures to be made.

36. Electrochemotherapy—an effective treatment for intractable cutaneous lesions secondary to breast cancer

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Cutaneous recurrences of breast cancer after multimodal therapy are a significant clinical problem and a cause of patient distress and despair because of evident progression, pain, bleeding and ulceration¹. Electrochemotherapy (ECT) is the application of electric pulses to tumour tissue to render the cell membranes permeable to impermeant anticancer drugs and thereby facilitate a potent cytotoxic effect [2]. We present clinical experience with ECT of cutaneous breast cancer recurrences that failed to respond to currently available therapies. In combination with systemic and/or intratumoural bleomycin or cisplatin, electric pulses were delivered to locally recurrent symptomatic cutaneous breast cancer lesions in an outpatient setting. Eighteen patients (47–86 years) were treated, all of whom had prior multimodal therapy including mastectomy. In total 139 lesions were treated, including 5 (3.6%) lesions of greater than 5 cm². A response to treatment was seen in 110 lesions (79.1%), 83 complete and 27 partial. 24 lesions (17.3%) did not respond. Five lesions were not assessed as the patient was lost to follow-up. Of the 5 lesions greater than 5 cm², two had a partial response while 3 did not respond. 13/18 patients responded with worthwhile palliation. Electrochemotherapy is an effective palliative treatment for cutaneous breast cancer lesions that are refractory to multimodal therapy.

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Conflict of interest: None of the authors have a conflict of interest regarding this work.

Disclosures: None of the authors have a financial interest in this work.

37. A decision analysis between early and late defunctioning ileostomy reversal following primary resection of a rectal tumour

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Introduction: Defunctioning ileostomies remain a mainstay of treatment following resection of low rectal tumours. Although most

surgeons favour ileostomy reversal at 8–12 weeks, it may take 24 weeks or more before reversal is completed. Recent evidence suggests that reversal within 10–14 days of the primary anastomosis may carry acceptable morbidity and mortality, potentially reducing the need for patients to manage stomas long-term. Our aim was to compare early reversal with reversal at both 12 and 24 weeks and life-long stoma. There is currently no data supporting ideal timing of reversal.

Methods: Probability estimates were obtained for early and delayed groups. The early group comprised patients from three studies ($n = 142$), with the late group based on patients from 39 studies ($n = 3,696$). Utility estimates were based on expert opinion from four studies. For each strategy, morbidity and mortality were considered. The primary endpoint was quality-adjusted life-years (QALYs) gained from each approach. Decision analysis from the patient's perspective was used to calculate the optimum surgical strategy. Appropriate sensitivity analysis was performed.

Results: Analysis revealed the optimum strategy was early reversal in suitable patients, with an overall gain of 12.39 QALYs, and 16.25 QALYs for those suffering no complications. Reversal at 12 and 24 weeks provided 8.64 and 8.52 QALYs, respectively, due in large part to length of hospital stay and the morbidity of defunctioning ileostomy.

Conclusion: Stoma reversal within 14 days of the original procedure may be the optimal strategy for those patients requiring defunctioning ileostomies following primary anastomosis.

Disclosures: None.

Conflict of interest: None.

38. Augmentation index and multivariate risk analysis for assessment of peripheral vascular disease

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Peripheral vascular disease (PVD) is responsible for a significant morbidity and mortality worldwide. Ankle brachial pressure index (ABPI) is the non-invasive investigation of choice for PVD. We have previously demonstrated that radial augmentation index (rAI) may have a role in the assessment of PVD essentially negatively correlating with ABPI in an initial study we carried out. We sought to follow this with a larger study examining multiple risk factors in an age and gender matched group.

63 subjects (30 known PVD and 33 controls) had ABPI measured and 18 risk factors and biochemical measurements measured. They then underwent pulse wave analysis and average rAI recorded. The Framingham risk Score for symptomatic PVD was also calculated.

There was a significant negative correlation between ABPI and rAI ($r = -0.32$, $p < 0.005$) in the group overall.

	Controls	PVD	<i>P</i> value
Mean age (years)	71.4	74.5	0.7
Male/female	21/12	16/14	0.3
BMI	28.1	27.52	0.4
Fasting cholesterol (mmol/L)	4.8	4.39	0.02
Smoking (pack years)	19.4	32.5	0.01

Table b continued

	Controls	PVD	<i>P</i> value
Framingham risk score	16.16	16.0	0.16
ABPI	0.935	0.672	<0.05
rAI	26.68	29.29	0.18
ABPI/rAI correlation (<i>r</i>)	-0.304 ($p = 0.07$)	-0.22 ($p = 0.156$)	

To conclude our PVD and control groups were well matched in terms of age, gender and many risk factors but those in the PVD group had a much greater smoking history. A lower ABPI correlated well with the presence of symptomatic PVD. There was a correlation between rAI and PVD—it was not statistically significant, however, we feel further study is warranted and that radial augmentation index is a useful assessment tool in PVD.

Conflict of interest: None

Disclosures: None.

39. Retrospective application of Nottingham Prognostic Index (NPI) and Adjuvant! Online tool in newly diagnosed patients with early breast cancer in mid-western Ireland

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Prognostic tools used in oncology have been derived to help stratify patients into specific risk-related groupings. We herein report our experience with the retrospective application of both the Nottingham Prognostic Index (NPI) and the web-based tool, Adjuvant! Online (<http://www.adjuvantonline.com>) and the comparative outcome for patients in Mid-Western Regional Hospital (MWRH), Limerick, Ireland.

The study period ranged from 01/01/2002 to 31/12/2002. Data was derived from (1) Mid-Western Cancer Centre (MWCC) Oncology Database (2) MWRH pathology records (3) MWRH patient files (4) MWRH Breast Multidisciplinary meeting records, and analysed using Predictive Analytics Software (PASW). Seventy-seven patients with nonmetastatic breast cancer were analysed. Mean age: 53.4 years (range 23–74 years). Median follow-up: 84 months. Patients were distributed into the following NPI groups, good, 26.0% (20/77), moderate, 50.6% (39/77) and poor risk, 23.4% (18/77); median survival did not show direct correlation with NPI risk, 83.3 months, good, 85.1 months, moderate and 76.2 months for poor-risk patients. Application of Adjuvant! Online showed a better correlation between the predicted survival (mean 72.9%, median 78.6%) versus the observed survival of our patient cohort (81.8%) and this was maintained within all sub-groups, including those who undertook no additional therapy, hormonal therapy and chemotherapy. Prognostic tools are useful in evaluating and predicting the possible outcome. In this study, Adjuvant! Online was better able to predict overall survival for our cohort. These tools work well in the clinical setting, but should not be seen as an alternative to good clinical judgment when assessing patients on an individual basis.

Conflict of interest: None of the authors have any conflicts of interest to disclose.

Disclosures: The authors have no disclosures relevant to this submission.

40. Bilirubin is a specific marker for acute appendicitis

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Introduction: No reliably consistent specific inflammatory marker for acute appendicitis has been identified. White cell counts are not specific and the specificity of C-reactive protein varies markedly between studies. Bilirubin has recently been shown to be a specific marker for perforated appendicitis [1, 2], but these studies did not focus on bilirubin as a marker for acute appendicitis.

Aim: To determine the value of bilirubin as a marker for acute appendicitis.

Methods: A retrospective analysis of appendicectomies performed over 12 months. Data collected included laboratory and histological results. Patients were grouped according to histology findings. Comparisons were made between groups for bilirubin levels.

Results: Complete data were available for 471 appendicectomies. Appendicitis (inflamed, perforated or gangrenous appendix) was confirmed in 384 (82%) specimens microscopically. Hyperbilirubinaemia was found in 34% of patients with appendicitis vs 14% with a non-inflamed appendix (OR 3.11, $p < 0.001$). For patients without perforation, those with hyperbilirubinaemia were significantly more likely to have acute appendicitis (OR 2.64, $p = 0.002$). The specificity of hyperbilirubinaemia for acute appendicitis was 86%. For patients with appendicitis, the odds of having a perforated or gangrenous appendix were over 3 times higher for those with hyperbilirubinaemia (OR 3.71, $p < 0.001$), and its specificity for perforation was 70%. Although only 138 patients had CRP levels measured, the specificity of CRP for acute appendicitis (71%) and perforated appendicitis (36%) was less than that of hyperbilirubinaemia.

Conclusion: Hyperbilirubinaemia is a specific marker for acute appendicitis and is reasonably specific for appendiceal perforation. In suspected appendicitis, bilirubin levels may aid decisions concerning the timing of operative intervention.

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Conflict of interest: None.

Disclosures: None.

41. Primary closure vs excision and healing by secondary intention in the treatment of sacrococcygeal pilonidal disease

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Introduction: The management of pilonidal disease remains controversial. Studies have supported the use of various procedures, however, recurrence is common. The aim of our study was to compare primary closure to excision and healing by secondary intention, and to attempt to predict factors associated with recurrence.

Methods: Patients diagnosed and treated for pilonidal sinus disease at Our Lady of Lourdes Hospital between 2004 and 2009, by 2 consultant surgeons were included. Patients were identified through theatre logbooks and HIPE casemix. Retrospective chart review was undertaken and additional data collected through telephone survey. Patient demographics, details of initial presentation, operative management and outcome were recorded.

Results: 101 patients were included in the study. The male:female ratio was 7:3, with a mean age of 31. 67% of patients had a BMI of 25 or greater. 55% of patients presented acutely, with 45% referred to the outpatient department. Of the total number, 78% went on to have a definitive procedure (58% by primary closure and 42% by excision, packing and healing by secondary intention.). 28% of patients recurred with an average recurrence time of 8 months. The type of procedure performed was not associated with recurrence. An open procedure was more likely to be associated with longer time to healing, return to activities, prolonged use of analgesia and increased cost compared to primary closure.

Conclusion: Pilonidal sinus disease, while common, still poses a challenge with regards to its management. Primary closure has a comparable recurrence rate, with both cost and lifestyle benefits.

Conflict of interest: None.

Disclosures: None.

42. Defaecating proctography in the investigation of functional anorectal disorders

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Defaecating proctography is a valuable but often underused and poorly appreciated adjunct in the diagnosis of functional rectal and anal disorders. We reviewed the use of this investigation in our unit's experience over a 12-month period to evaluate its clinical utility.

Proctography was undertaken in 46 patients with a varied spectrum of anorectal dysfunction. Of the 46 patients, 45 were female, age range 24–89, mean age 52.8. Adjunctive investigations included colonoscopy ($n = 31$), endoanal ultrasound ($n = 9$), anorectal manometry ($n = 5$), barium enema ($n = 4$).

The most common presenting complaints were constipation ($n = 28$), symptoms of prolapsed in the absence of a clinically demonstrable prolapse ($n = 8$), incontinence ($n = 11$), solitary rectal ulcer ($n = 2$). There were positive findings on 31/46 proctograms (67.3%), some with a combination of pathologies. Eight patients had a rectal prolapse: five undergoing laparoscopic rectopexy, two undergoing Delorme's procedure and one with a small prolapse which was managed conservatively.

Of those patients presenting with constipation, eleven patients had a rectocele, four had an enterocele, five had failure of normal relaxation of either the puborectalis or levator ani, five had rectal intussusception. Each of these conditions has an individual management strategy. Management was thus established or altered based on the results of the proctogram in 31 patients (67.3%) with ten patients (21.7%) undergoing surgery. The adjunctive investigations failed to demonstrate these pathologies.

Defaecating proctography is a useful but poorly understood and underemployed diagnostic technique in the investigation of benign, functional anorectal disease guiding appropriate management in a significant proportion of properly selected patients.

Conflict of interest: None.

Disclosures: None.

43. Preventing infection in general surgery: improvements through education of surgeons by surgeons

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Introduction: Surgical patients are particularly at risk of HCAI through surgical site infections (SSI) and because of the need for intravascular access resulting in catheter-related bloodstream infection (CRBSI).

Methods: A two-year initiative commenced with an initial audit of surgical practice which was used to inform the development of a targeted educational initiative by surgeons specific for surgical trainees. Parameters assessed during initial and repeat audits after the educational initiative included intra- and post-operative aspects of the prevention of SSI as well as the care of peripheral venous cannulae (PVC) in surgical patients. A focused educational programme was designed and executed for surgical trainee centered around web-based learning including interactive clinical cases and fortnightly podcasts hosted in the iTunes[®] store. Traditional teaching methods such as lectures and posters were also incorporated.

Results: The proportion of prophylactic antibiotics administered pre-precision across 360 operations increased from 30 to 59.1% ($p < 0.001$). Surgical site dressings were observed in 234 patients, with a significant decrease noted in the percentage tampered with during the initial 48 h post procedure (6.2 vs. 16.5%, $p = 0.030$). A total of 574 PVC were assessed over the 2-year period. Improvements were noted in the proportion of unnecessary PVC in situ (24.4 vs. 37.9%, $p < 0.001$), PVC in situ for more than 72 h (3.1 vs. 10.6%, $p < 0.001$) and PVC covered with clean intact dressings (97.6 vs. 87.3%, $p < 0.001$).

Conclusion: Significant improvements can be achieved in surgical practice in SSI and CRBSI prevention through a focused educational programme developed by and for surgeons.

Conflict of interest: None.

Disclosures: None.

44. Acquisition of basic surgical skills early in the undergraduate career

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Acquisition of Basic Surgical Skills (BSS) early in medical training may improve quality of further surgical education. We introduced BSS as a Special Study Module (SSM) at NUIG to second- (Y2) and fourth-year (Y4) medical students. We compared the performance of Y2 and Y4 students in acquiring technical and knowledge-based components of the BSS SSM. During the SSM, didactic lectures on

theatre safety, wound healing, suture materials, abdominal incisions, local anaesthetic, skin lesions, principles of fracture management, laparoscopy and electrosurgery were delivered. Students were taught knot-tying and suturing skills in practical sessions. Subsequent clinical rotations enabled students to practice their skills in real-life scenarios under supervision. Students' knowledge and techniques were assessed using Multiple Choice Questions (MCQ) and Objective Structured Assessment of Technical Skills (OSATS). Forty-two students were enrolled into the SSM ($n = 20$ Y2, $n = 22$ Y4). Unsurprisingly, Y4 students performed significantly better in the knowledge-based MCQ scoring an average of $85.2 \pm 4.7\%$ compared to an average of $72.9 \pm 8\%$ in Y2 students ($p < 0.001$). However, there was no significant difference in overall OSATS performance between the two groups (Y2 average $73.7 \pm 14.8\%$ vs. Y4 average $67.8\% \pm 7\%$, $p = 0.108$). Interestingly, Y2 students outperformed Y4 in mattress suture technique ($p = 0.006$); in knot-tying and continuous suture techniques with near statistical significance ($p = 0.056$ for both). This study demonstrates a satisfactory acquisition of Basic Surgical Skills in early year medical students highlighting the potential for integrating Basic Surgical Skills early in the undergraduate curriculum.

Conflict of interest: None.

Disclosures: None.

45. Virtual reality outpatient: a feasibility study

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Minimum wait targets and shrinking resources put increased pressure on outpatient services. We examined the feasibility of Virtual Outpatients (VR OPD) in a general surgical cohort at Tallaght Hospital. Metrics including potential resource savings were investigated.

Selected return general surgical patients were enrolled into the VR OPD programme. These are patients who require minimal examination (inspection sufficing) and where histology or radiology reports require discussion. Using a free VOIP platform ("Skype") calls and web cam technology, the VR OPD consultation is delivered by a trained nurse specialist. Methods have been put in place to ensure confidentiality.

The first 20 patients in our VR OPD are reported here. Patient satisfaction ("survey monkey") is generally good and the programme has face validity. There were significant cost savings (80%) when compared to traditional OPD method.

We believe VR OPD brings us a step closer to achieving the efficiency goals without loss of patient satisfaction.

Disclosure: Supported by the Adelaide Society.

46. Emerging routine day case laparoscopic cholecystectomy in Ireland: regional hospital experience

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Background: Laparoscopic cholecystectomy has now become the treatment of choice for symptomatic cholelithiasis. Its introduction resulted in a shorter hospital stay, a shorter period of convalescence,

early return to work and decreased requirement for post operative analgesia, reduced hospital cost and early return to work [2, 3]. The primary aim of this single-centre retrospective review is to evaluate the feasibility, safety and efficacy of day-case laparoscopic cholecystectomy.

Methods: A retrospective chart review was performed on 150 charts that were admitted to the day ward for laparoscopic cholecystectomy between January 2009 and June 2010 in Midland Regional Hospital Tullamore, Ireland. Hospital in patient enquiry (HIPE) was used to identify these patients. Inclusion criteria were all patients admitted through the day ward for elective LC, ASA grade 1 or 2. Exclusion criteria were patients who had significant co morbidity and not fit for day surgery.

Results: During these 18 month period one hundred and fifty-one consecutive day cases laparoscopic cholecystectomy were performed. 79.5% (120) were female and 20.5% (31) male, with male: female ratio of 1:4. The mean age is 39.5 + 12.5 (range 14–75 years). Majority 75% were in ASA I, while 25% in ASA II. All the patients had symptomatic gall bladder disease.

Mean operating time was 55 + 12.3 min (range 30–110 min). There were no conversions to open, no injury to the viscera and no mortality. 48 (32%) went home same day while 68% (103) stayed overnight largely due to nausea and vomiting, 2 of the male patients stayed overnight on account of post operative urinary retention while 3 of the patients developed port site cellulitis. Post op.

Conclusion: Day-case laparoscopic cholecystectomy is safe, feasible and acceptable procedures for selected patients, it also provides substantial reduction in cost and resources used including reduced hospital length of stay. Patient selection is the key which can impact patient safety and confidence of performing the procedure.

References:

1. Reynolds W Jr (2001) The first laparoscopic cholecystectomy. *JLS* 5:89–94
2. Peters JH, Ellison EC, Innes JT et al (1991) Safety and efficacy of laparoscopic cholecystectomy. A prospective analysis of 100 initial patients. *Ann Surg* 213:3–12

Conflict of interest: None.

Disclosure: None.

47. Paediatric laparoscopic appendicectomy in a regional general hospital

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Introduction: The benefits of laparoscopy have led to it becoming the preferred modality for most elective and emergency abdominal procedures. This applies equally to appendicectomy, the commonest emergency surgical operation. However, because of a perceived need for specialist equipment and concerns regarding its safety in children, laparoscopic appendicectomy (LA) in this population is not commonplace outside of specialist units. We sought to evaluate our experience with paediatric laparoscopic appendicectomy in a regional general hospital.

Methods: We performed a retrospective evaluation of open (OA) and laparoscopic appendectomies performed between 2008 and 2010, in children less than 14 years. 313 cases were identified of which 265 complete patient records were available for analysis. Statistics were analyzed using SPSS software, and on an intention to treat basis.

Results: 100 patients had LA (39.1%) and 156 patients had OA (60.9%). There was no statistical difference between the LA and OA in terms of operative time and total length of stay (see Table). The negative appendicectomy rate was higher in the LA group. Complications were significantly higher in the OA group.

Conclusion: The higher negative appendicectomy rate in the LA group highlights its use as a diagnostic tool for indeterminate abdominal pain. Our results suggest that LA can be safely performed in children and should become the preferred modality.

	LA	OA
Total length of stay (days)	3.27 (1–15)	3.37 (1–20)
Postoperative length of stay (days)	2.53 (1–9)	2.75 (1–10)
Complications	3%	8.40%
Negative appendicectomy	25%	9.60%

Conflict of interest: None.

Disclosures: None.

48. Day-case laparoscopic Nissen fundoplication: a default pathway or is selection the key?

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In recent years, feasibility of day-case laparoscopic Nissen fundoplication (LNF) has been suggested. At our institution it has been the default protocolled pathway for the last 7 years.

The aim of our study was to evaluate whether patient factors affected the success of same-day discharge.

We retrospectively reviewed patient demographics, the severity of Gastro Oesophageal Reflux Disease (DeMeester score as surrogate) and their role on post-procedural inpatient admission over a 5 year period.

Between June 2005 and June 2010, 112 patients with American Society of Anesthesiologists (ASA) grade I or II had day-case LNF. Same day discharge was achieved in 80.3%. Twenty-two of 112 patients (19.7%) required admission post-operatively, with a resultant mean length of stay of 1.41 days. Factors mandating admission included: pain 50%, nausea 22.7%, urinary retention 13.6%, post-operative oxygen requirements greater than 4 h 9%.

In our series, females had a significantly higher incidence of post-surgical admission (44.4% females, 15.8% males $p = 0.03$; Mann-Whitney U test (MWU)). There was also a significantly higher mean DeMeester score admitted population (50.89 vs. 36.03, $p = 0.021$; MWU). Age was not a significant determining factor in post-operative admission rates.

We conclude that day-case LNF is a safe, feasible procedure in the appropriately selected patient population. Our novel finding of higher admission rates in female and those with a higher DeMeester score should be utilised in planning peri-operative hospitalisation in this cohort.

Conflict of interest: The authors report no conflicts of interest.

Disclosures: None.

49. Investment in diabetic foot services: reducing the drain on resources?

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Introduction: The lifetime incidence of foot ulceration in diabetics is 15–25%, of which 15% will require a major amputation, placing a huge demand on hospital resources as well as impacting on patients' quality of life. A dedicated bi-weekly consultant led multidisciplinary foot protection clinic was established in June 2008 in Tallaght hospital, which has 457 general adult beds.

Methods: All diabetic patients at high risk of foot ulceration, with active ulceration or previous minor amputations were referred to the clinic for assessment. Data regarding admissions for lower limb procedures, length of stay and number of readmissions was collated over a 2 year period prior to clinic establishment (control period) and the subsequent 2 years (study period).

Results: 211 lower limb procedures (major/minor amputations and debridement) were carried out over the 4 year period (2006–2010) on 108 diabetic patients. The median length of stay reduced from 15 days (range 4–194) in the control period to 12 days (range 1–258) in the study period. Diabetic foot complications accounted for 0.85% bed days used in the control period versus 0.74% bed days used in the study period. 55 patients (50.9%) required further readmission under the vascular service. The median number of readmissions was 2 (range 1–11).

Conclusion: Investment in clinical services to prioritise diabetic foot-care has been associated with decreased median length of stay by 3 days per admission and a net reduction of 13% of bed days used in the 2 years following clinic establishment. In the face of a growing prevalence of diabetes, development of preventative and early intervention services is both prudent and cost effective.

Conflict of interest: None.

Disclosures: None.

50. Improving patient care: a 1 year experience in a dedicated surgical assessment unit

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Introduction: As part of the reconfiguration of acute surgical services in the Mid-Western Region, a dedicated surgical assessment unit (SAU) was established in October 2009 at the Mid-Western Regional Hospital to provide acute surgical assessment of adult patients outside of the Accident and Emergency (A&E) setting. The unit is led by dedicated nursing and surgical staff. We assessed this service in its initial year and compared it to A&E services.

Methods: All SAU and A&E admission data is prospectively entered into computer databases. We audited these databases and theatre logbooks to examine referral and admission patterns over a 12-month period from November 2009 to October 2010. SAU figures were compared to the A&E figures for comparable patients.

Results: In total 1949 patients were referred to the SAU over the 12-month period and 857 patients were admitted (44%). A median of 71.5 patients were admitted every month. 1226 patients were admitted through A&E in the same time period. Referral sources were similar in both groups, the majority being GP referrals. Waiting times for a

clinical decision were shorter for SAU patients. Only 6% of patients admitted through the SAU waited more than 6 h for a bed compared to 68% of those admitted through A&E. This facilitates access to theatre for emergency procedures.

Conclusions: Almost 2,000 patients who would otherwise have presented to A&E were referred to the SAU in its first year. Admission waiting times were significantly shorter in the SAU. This improves patient care and relieves pressure on already scarce A&E resources.

Conflict of interest: None.

Disclosures: None.

Admitted patients		SAU 857	A&E 1,226
Referral source (% of patients)	GP	65	62
	Shannon doc	0	2
	Other Hospital	25	12
	Other	10	24
Time from registration to decision (% of patients)	<3 h	80	49
	3–6 h	15	40
	>6 h	5	11
Time from registration to admission (% of patients, unknown in 9.2% of SAU pts)	<3 h	75	4
	3–6 h	19	28
	>6 h	6	68

51. An Irish perspective on comparison of hospital costs of endovascular versus open abdominal aortic aneurysm repair

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Endovascular strategies for the treatment of complicated abdominal aortic aneurysms (AAA) now exist. Despite high costs of endovascular stents, we hypothesize that savings from reduced complications associated with Endovascular Aneurysm Repair (EVAR) compared to Open Repair (OR) would offset high device cost and make it economically practical.

A retrospective direct patient level costing analysis of 15 patients who underwent elective infrarenal AAA repair in 2008 was compared with 42 patients who were managed via endovascular method. Data from the HIPE system was used to align costs with relevant procedures. The data was analysed using unpaired t-test.

There was a male preponderance in the patient cohort (82%) with mean ages of 69 years and 73 years in the OR and EVAR groups, respectively ($p = 0.02$). Total in-patient hospital cost for OR averaged at $48,721 \pm 63,721$ and $29,169 \pm 4,912$ for EVAR ($p = 0.45$). Total theatre costs were higher for EVAR by approximately 3,000 compared to OR ($p = 0.27$). The average cost of the endografts used was 7,672 (± 975). Post-operative costs were significantly higher in the OR group by 25,000 ($p = 0.03$). This related to the longer post-operative stay (18 days ± 4.4) after OR, with a mean of 8 days spent in Intensive Care Unit, compared to EVAR (5 days ± 3.6). A higher

30-day mortality rate ($p = 0.052$) was seen in the OR group, with more serious morbidities.

Prolonged post-operative stay, the need for intensive nursing care and the higher morbidity and mortality rate linked with elective OR accounts for increased cost when compared to EVAR.

Conflict of interest: None.

Disclosures: None.

52. A cost-benefit analysis of OncotypeDX Assay in the selection of women with screen detected breast cancer for adjuvant systemic cytotoxic chemotherapy

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Background: OncotypeDX is a clinically validated tumour assay which analyses a panel of 21 genes to determine the likelihood of disease recurrence in patients with estrogen-receptor(ER) positive, lymph-node negative, invasive breast cancer. Furthermore, it can predict response to chemotherapy, therefore identify patients who would derive minimal or no benefit from chemotherapy.

Aim: Our aim was to perform a cost benefit analysis of OncotypeDX use versus standard histopathological predictors of clinical gain from adjuvant therapy in screen detected breast cancer patients diagnosed in BreastCheck, Galway.

Methods: Using a prospectively maintained database, we identified patients with ER-positive, lymph-node negative, invasive breast carcinoma. Application of the National Comprehensive Cancer Network (NCCN) guidelines identified a group with an indeterminate chemotherapy benefit. A cost analysis model was constructed to ascertain if the reduction in administered chemotherapy following OncotypeDX use was significant and sustainable. The model was stressed within a range of clinical parameters for example, admission rates, chemotherapy costs and test cost, for continued economic benefit.

Results: We identified 159 suitable patients from 2007 to 2010. Following application of the guidelines 3 sub-groups were identified a chemotherapy benefit group ($n = 119$), a no-benefit chemotherapy group ($n = 14$) and a group in which there was an indeterminate benefit from chemotherapy ($n = 26$). Our model resulted in a 783 cost saving per patient following OncotypeDX testing.

Conclusion: OncotypeDX is a viable cost-reduction measure when all aspects of chemotherapy treatment are analysed and remains so under a wide range of stressors furthering the argument that it should be nationally available for suitable patients and would result in savings for the healthcare service.

Conflict of interest: None.

Disclosures: None.

53. Information and the audit: experience of auditing clinical practice in a regional hospital

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Introduction: The audit process has become a vital tool in examining and improving the way healthcare is provided. Accurate information is fundamental to assessing current standards. In auditing the

approach to appendectomies in the MWRH, the access to and systematic recording of adequate information was assessed for areas of improvement.

Methods: Data was collected retrospectively on children aged 14 and under who underwent a laparoscopic and/or open appendectomy over a 12 month period in the MWRH. 161 cases were identified from the general surgical register completed on the patient's arrival at theatre. Medical records for 107 of those initially identified were obtained for further data compilation.

Findings: Preventable information losses occurred. The surgical register was hand-written yielding problems of legibility and accuracy. Medical records did not correlate with the information provided and so were lost to the study. Operative notes often lacked details. Clinical notes varied in frequency and detail. Often no note indicating patient's discharge instructions existed.

Discussion: Integrated care pathways are increasingly being implemented in hospitals across the world to standardise approaches to patient care especially in common conditions with well-defined outcomes such as appendicitis. Systematic recording of practice with a view to identifying variations from agreed standards is an important feature of such pathways to ensure equity of patient care. As such use of standard format notes pre-, intra- and post-operatively in cases of acute appendicitis and other suitable surgical conditions could improve meaningful audit and hence future patient care.

Conflict of interest: None.

Disclosures: None.

54. X-bolt versus the dynamic hip screw (DHS): does this new design variation offer potential?

A biomechanical study

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The objective of this study was to biomechanically test and compare the X-Bolt and the Dynamic Hip Screw (DHS) in terms of mode and pattern of failure with regard to the fixation that each implant gains within bone.

Pushout studies were performed with both the dynamic hip screw and the X-Bolt in both an artificial bone substrate in the form of polyurethane foam blocks with predefined mechanical properties. These pushout studies were performed as a means to investigate each implants resistance to 'cut out', which is the most common mode of failure with the DHS.

The results demonstrated that the X-Bolt produced a force displacement curve that performed better than the dynamic hip screw as it required a greater amount of energy to advance it through the test material than the dynamic hip screw. This result was achieved with an artificial bone substrate of density 0.08 g/cm³ in which it was tested.

The conclusion was that the X-Bolt is a new concept with regard to fixation of intertrochanteric fractures that produces a different force displacement curve than the dynamic hip screw which offers better resistance to pushout, as demonstrated with the 0.08 g/cm³ test material. This should in turn result in it providing better resistance to cut out. However, further investigations are necessary before the true potential of this new implant is known.

Conflict of interest: This was a self funded project with no corporate support.

55. The use of neuromuscular electrical stimulation (NMES) in the early recovery period following Total Hip Arthroplasty to enhance lower limb haemodynamics

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Patients post total hip arthroplasty remain at high risk of developing Deep Vein Thrombosis (DVT) during the recovery period following surgery despite the availability of effective pharmacological and mechanical prophylactic methods. Neuromuscular Electrical Stimulation (NMES) of the soleus muscles during the hospitalised recovery period on this patient group may be effective at preventing DVT by artificially activating the calf muscle pump. By targeting the soleus muscle, NMES can reduce the stasis that occurs within the soleal venous sinuses, a common site for thrombi to form [1]. However, the haemodynamic effectiveness and comfort characteristics of NMES in post-THA patients immediately following surgery has yet to be demonstrated. Twelve THA patients who were between one and 6 days post-surgery participated in this study. NMES was applied to the calf muscles of each patient using skin surface electrodes for a maximum duration of 4 h. Doppler ultrasound measurements of the popliteal vein were taken to determine the haemodynamic benefit of NMES. Comfort was assessed by asking patients to mark their overall comfort level on a visual analogue scale (VAS) at three time points: before the application of NMES, once the NMES session had begun and before the NMES session ended. The results showed significant increases popliteal vein blood flow due to NMES when compared to background flow. Moreover, no significant changes were observed in VAS scores, indicating that patients found the application of NMES to be comfortable. These results may have significant implications for future NMES based DVT prevention studies.

Reference:

1. Faghri PD, Pompe Van Meerdervort HF, Glaser RM, Figoni SF (1997) Electrical stimulation-induced contraction to reduce blood stasis during arthroplasty. *IEEE Trans Rehabil Eng*, vol 5, pp 62–969

There are no conflicts of interest to the author's knowledge.

This research has been performed in conjunction with the Department of Electronic and Electrical Engineering, University College Galway.

56. Exeter total hip replacement: comparison of clinical and radiological outcomes between consultant and trainee grade orthopaedic surgeons

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Introduction: Surgical experience has been shown to improve the clinical outcomes in Total hip arthroplasty. The objective of this study was to compare clinical and radiological outcomes between consultant and trainee grade surgeons for the Exeter total hip replacement taken from the Cappagh National Orthopaedic Hospital Joint Register.

Methods and materials: Between 2005 and 2008, 433 were Exeter total hip system. 160 patients had full 2 year follow up. A consultant

was the primary surgeon for 79 (49%) patients and a trainee was the primary surgeon for 81 (51%) patients. Mean age, at time of operation was 68 years. Clinical outcome was assessed with WOMAC and SF36 scoring system. Radiographs were evaluated for radiolucency using Barack grading for cement around the stem and Charnley and DeLee zones around the acetabulum. Relation of the stem axis to the femoral axis was analysed together with acetabular index.

Results: Mean WOMAC scores for consultant grade surgeons were: 22.96(at 2 years post op) with standard deviations of 17.19(at 2 years). Average SF36 scores were 71.30 (at 2 years) with standard deviations of 22.59(2 years). Trainee grade surgeons had average WOMAC scores: 25.35 (2 years) with standard deviations of 16.66 (2 years). Average SF36 scores were: 66.63 (2 years) with standard deviations of 19.35 (2 years). Student *t* test was used to correlate differences between the two groups. Clinical outcomes between the two groups was not significant ($P < 0.05$).

Conclusion: We found out that both groups had similar outcome and survival, with no significant difference with an Exeter Total Hip Arthroplasty.

Conflict of interest: None.

Disclosures: None.

57. Proximal femoral anatomy in total hip arthroplasty: a tri-planar computerized tomographic assessment

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Introduction: Limb length discrepancy is one of the most common surgical complications following total hip arthroplasty. A commonly used surgical reference point is the tip of greater trochanter as a reference for the rotation centre of the femoral head to align the femoral component. Prior studies have suggested that a considerable variation may exist in this relationship.

Methods: We used tri-planar computerized tomography analysis of the proximal femoral anatomy in a consecutive series of 150 patients ($n = 150$) to accurately delineate the relationship between the tip of the greater trochanter to the centre of the femoral head. CT scans included the full length images of the patients from pelvis to ankle.

Results: The mean location for the centre of the femoral head was 8.64 mm (95% confidence interval: 9.44–7.83) distal to tip of the greater trochanter. The centre of the femoral head was found to be distal to the tip of the tip of the GT in 90.6% of cases.

Conclusion: Based on our study we would suggest caution in using the tip of the greater trochanter as a reference point during total hip arthroplasty as it could be associated with an inadvertent intraoperative leg lengthening.

Conflict of interests: None.

Disclosures: None.

58. Hip fractures patients on clopidogrel: time to change management strategy

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Introduction: Increasing numbers of elderly patients are being prescribed Clopidogrel, an anti-platelet agent for medical reasons. There are no international guidelines as to the management of patients with

hip fractures on Clopidogrel in peri-operative period especially in relation to timing of the surgery. In our hospital, hip fracture surgery is deferred for 4 days and platelets are reserved for the operative/post-operative period, in case they have significant bleeding or an associated complication. We conducted a retrospective study on patients admitted over a period of 2 year.

Materials and methods: A retrospective study for all patients with hip fractures on Clopidogrel admitted between April.2008 and April 2010 included. Age, Sex, ASA, number of cancellations, operation performed, length of stay, post-op complications including wound, blood and platelet transfusions data were recorded.

Results: 53 patients admitted with hip fractures on Clopidogrel. The mean age was 80.6 years and the male: female ratio was 25:28. The mean length of stay was 23.4 days (range 3–63). There was an average delay of 5.37 days between admission and surgery (range 1–11). An average drop of 1.16 gm between pre-operative and post-operative hemoglobin was noted (range 8.7–15.7 gm pre-operatively and 7.3–15 gm post-operatively). There were no wound complications. Two of those patients needed platelet transfusions intra-operatively. The RBC transfusion rate was 0.86 units/per patient. 30-day mortality rate is 5 patients.

Conclusion: The policy of delaying surgery for 4 days needs to be questioned. There were no incidences of bleeding or haematoma formation in all of our patients. The ideal time to operate on hip fracture patients is within 24–48 h of admission after medical optimisation.

Conflict of interest: None.

Disclosures: None.

59. Correlation between osteoarthritis and osteoporosis using peri-operative DEXA scanning in patients undergoing elective joint replacement

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Introduction: The relationship between osteoarthritis (OA) and osteoporosis remains controversial. Both are common in old age, especially osteoporosis in female. This study was carried out in patients on the waiting list for joint replacement using dual energy X-ray absorptiometry to determine the presence or absence of osteoporosis and whether it is side specific related to OA or not.

Patients and methods: Prospective observational study of 46 patients on the waiting list for joint replacement (31 female and 15 male) between the age of 52 and 89 years scheduled for DEXA scan prior to their surgery. The femoral neck (FN) and total hip BMD T-score and Z-score were measured by one operator to eliminate the 3% possibility of operator interpretation error.

Results: 13 patients (28.26%) had a normal result, 20 patients (43.48%) scan revealed the presence of osteopenia, and 13 patients (28.26%) are osteoporotic, one of the osteoporotic patients was 89 year-old female, but also another one was 70 year-old male. No significant difference was found in relation to OA side compared to the other side when osteopenia or osteoporosis is diagnosed.

Conclusion: The presence of osteopenia or osteoporosis in candidates for joint replacement can predict the future possibility of bone loss and subsequent aseptic loosening, fragility or periprosthetic fractures. Further studies need to be done to establish a protocol or guidelines to scan and treat patients awaiting joint replacement for possible co-existent osteopenia or osteoporosis to prevent future complications.

Conflict of interest: No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

Disclosure: None.

60. The repicci II unicondylar knee arthroplasty—results from an independent centre

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Total knee arthroplasty (TKA) is among the most increasingly performed procedures due to aging population as well as ever-increasing array of surgical techniques and implant options. Nevertheless, it has been estimated that approximately 25–40% of patients who undergo TKA in fact suffer from unicompartmental disease and isolated medial compartment involvement is implicated in as much as 85–90% of this subgroup. As a consequence, unicondylar knee arthroplasty (UKA) is advocated as an alternative or a 'staging' procedure citing growing body of evidence for advantages from its proponents. Despite encouraging recent reports, literature, however, remains scanty on account of Repicci II UKA prosthesis. In this prospective clinical case series, we report the medium-term clinical and radiological outcomes—along with perioperative complications, survivorship and cost effectiveness—of this implant.

A hundred patients were recruited accounting for 114 UKAs. The average follow-up was 7.4 years. In addition to standard demographic data, incidence of perioperative complications and characteristics of hospital admissions, patient's ADL functional score and international knee society (IKS) score were collected pre-operatively, 1 year post-operatively and at final follow-up. Similarly standing and lateral radiographs were obtained for determination of hip-knee-ankle (HKA) axis and accuracy of posterior tibial slope.

We observed 6.1% of minor perioperative complications and 19.3% revision rate (77% 9-year Kaplan–Meier survivorship) in this series. However, there were significant improvements in IKS and ADL measurements as well as appreciable cost-effectiveness without jeopardizing operative results. It is our opinion that the performance outcome of UKA prostheses can further be enhanced with due emphasis on advancing surgical proficiency.

Conflict of interest: I hereby attest the fact that there is no conflict of interest exists undertaking this study—in terms of objective, study design and recommendations.

Disclosures: This is also to confirm that there is, to the best of my knowledge, no particular information or assets for disclosure that may give raise to actual or potential conflict of interest in publishing this study.

61. Prophylactic antibiotics for elective knee arthroscopy: do we really need it?

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Prophylactic antibiotics are routinely used in elective knee arthroscopy despite of very low incidence of infection and lack of clear

evidence. We aim to study the effect of prophylactic antibiotics on the incidence of infection in elective knee arthroscopies.

A retrospective study was conducted on all patients who had elective Knee arthroscopy between January 2006 and December 2008. The study included 1478 consecutive cases. 265 patients (group A) did not receive any antibiotic, whereas 1213 patients in group B were given a single dose of Cefuroxime. Patient's data was recorded from clinical notes and a confidential questionnaire regarding post operative infection. Only cases of deep joint infection requiring intravenous antibiotics and joint washout were included as an end point measure, excluding patients with superficial port site cellulitis that responded to oral antibiotics. Chi square test was used for statistical analysis with p value of <0.05 to be considered significant.

The overall infection rate was 0.27%. In group A one out of 265 (0.37%) developed septic arthritis, while in group B, 3 out of 1213 patients (0.24%) required washout for septic arthritis. There was no statistically significant difference in the infection rate of two groups ($P = 0.747$). There was no correlation between the presence of risk factors and duration of surgery with post operative infection.

This study suggests that routine use of prophylactic antibiotics for elective knee arthroscopy has no significant effect on the post operative infection rate.

Conflict of interest: None.

Disclosures: None.

62. Anterior cruciate ligament reconstruction

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Introduction: The success of anterior cruciate ligament reconstruction surgery is dependant upon accurate positioning, secure fixation and appropriate tensioning of the graft material.

Aim: To develop a device that accurately tensions and securely fixes anterior cruciate ligament grafts to the tibia.

Methods: A device was designed and produced that secured an anterior cruciate ligament graft to the tibia whilst concurrently producing a pre-determined level of tension within the graft. The tensioning and fixation properties of the device were tested using sawbones and porcine flexor tendons harvested from adult porcine forelimbs. Twelve porcine tendons were tensioned to demonstrate that the level of tension was reproducible from tendon to tendon within a pre-determined range. Twelve further tendons were inserted as graft material into sawbones and then tensioned to destruction. The twelve tendons were divided equally into three groups; four were secured with the tensioning-fixation device, four with bioabsorbable interference screws and four with both the tensioning-fixation device and the bioabsorbable interference screw.

Results: The tensioning-fixation device accurately produced a set level of tension in each tendon tested. The fixation was secure within the tibia but the graft failed because of suture failure at a level lower than the failure tension of the interference screw. The combination of both devices increased the tension to failure level significantly.

Discussion: The tension-fixation device accurately tensions an anterior cruciate ligament graft, but does not have the same tension to failure level as the interference screw. Used in tandem, the device and a bioabsorbable interference screw increases the tension to failure level of the graft.

Conflict of interests: None.

Disclosures: None.

63. Arthroscopic meniscal repair using the fast-fix system

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It has been previously shown that meniscal repair compared with partial meniscectomy (partial meniscal resection) decreases osteoarthritic changes in the human knee joint.

The purpose of this study was to evaluate the clinical success of the FasT-Fix meniscal repair device (Smith & Nephew Endoscopy, Andover, MA, USA) in repair of isolated meniscal injury.

A retrospectively collected consecutive series of meniscal repairs performed with the FasT-Fix device was studied. Sixteen patients with mean length of follow up of 25 months (range 7–36 months) were included. All menisci were repaired by a single surgeon (FS) using the FasT-Fix device. Patients with associated ligamentous injury, chondral injury or previous meniscal repairs were excluded from the study. Clinical outcome was assessed using the Tegner, Western Ontario Meniscal Evaluation Tool (WOMET), International Knee Documentation Committee Activity Score (IKDCAS) and the Lower Extremity Functional Scale (LEFS).

Meniscal repairs were 13 males and 3 females with a mean age of 23.7 years (range 13–65 years). The aetiology of the meniscal injuries were sports related in 66.6% and traumatic in 33.3% of the cases. The cohort showed improvements post operatively when evaluated with the various validated scoring systems above. The Tegner pre injury level average 7.73 (range 3–10) pre surgery 1.3 (range 1–4) and post repair 7 (range 3–10). IKDCAS was pre injury 1.8 (range 1–4) and post repair 3.2 (range 1–4) post repair 1.66 (range 1–3). WOMET average 29/160 post op (range 0–74). LEFS 72.4/80 post op (range 40–80).

In conclusion successful meniscal preservation is feasible by using the FasT-fix meniscal repair device. As arthroscopic meniscal repair offers significantly improved results for isolated traumatic meniscal tears regarding the long-term follow-up in osteoarthritis prophylaxis, affected patients should be considered for meniscal repair surgery at the time of diagnosis.

Conflict of interest: None.

Disclosures: None.

64. Treatment of tibiofibular syndesmotic disruptions with Arthrex Tightrope™

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Ankle syndesmotic injuries are complex and require anatomic reduction and fixation. Traditionally, metal screw fixation has been the method of choice but controversies exist in its use and significant hardware related complications have been reported in literature. We present the largest series of Syndesmosis fixation using Arthrex Tightrope™ (Naples FL).

Fortynine patients with ankle diastasis, treated with Arthrex tightrope™ were reviewed retrospectively, using American Orthopaedic Foot and Ankle Society (AOFAS) score and radiographic parameters for syndesmosis integrity. The operative technique was slightly modified in 31 cases where periosteum was dissected to create a recess posteriorly and the knot was buried sub-periosteally.

Mean age of patients was 37.7 years. Eighteen were performed with standard technique while 31 with modified technique. Mean clinical and radiological follow-up was 5 months. Subjective data was collected using confidential questionnaire at average 24 months post-operatively. Average time to full weight bearing was 7.7 weeks and to return to normal activities was 11.2 weeks. Postoperative radiographic measurements demonstrated satisfactory reduction of

syndesmosis. Mean AOFAS score was 85.57 post-operatively. There were three cases of hardware removal in standard technique group as compared to none in the group with modified technique.

Arthrex tighrope™ provides an effective method of syndesmosis stabilization which obviates the need for routine removal of implant and facilitates dynamic stabilization. Results of this study are satisfactory and comparable to previously reported studies. We emphasize that surgeons must be aware of potential risk of soft tissue complications.

Conflict of interest: None.

Disclosure: None.

65. Operative scaphoid fixation in an Irish regional trauma centre: 5 year prospective study of a single surgeon case series.

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The scaphoid is the most frequently fractured carpal bone, accounting for 71% of all carpal bone fractures. Acute scaphoid fractures occur most commonly in the young active population. This poses a significant diagnostic dilemma in deciding which patients are suitable for cast immobilisation versus operative fixation. Fracture location, duration of time lost from work and impairment in activities of daily living are key factors in scaphoid fracture management.

Clinical and radiological outcomes were recorded prospectively over a 5 year period. Parameters under investigation included demographics, nature of injury, fracture location, operative procedure and outcome. Patient preoperative and postoperative symptoms and functional examination was documented.

Seventy-seven patients underwent operative scaphoid fixation (72 males and 5 females) of which the mean age was 25.6 years. Waist fractures constitutes 55% ($n = 42$) followed by proximal pole 38% ($n = 29$) with a small number of distal pole fractures ($n = 2$) and one patient having both waist and distal pole fractures. Procedures included ORIF with screw $n = 20$; ORIF & bone grafting $n = 28$; ORIF & vascularised bone grafting $n = 1$. 27 patients underwent early percutaneous fixation with headless differential pitch screws.

In this cohort those fixed with early percutaneous fixation returned to work earlier ($P < 0.001$) compared to other methods of fixation. Overall radiological unions rates were 94.8%. Significantly less follow-up was required for patients in the percutaneous group compared to all other groups ($P < 0.001$). Patient satisfaction rates were highest with percutaneous fixation using a standardised patient questionnaire.

In conclusion we have shown that operative scaphoid fixation is an efficient and effective way in treating both early and late fracture presentations.

Conflict of interest: None.

Disclosures: None.

66. Fastform: new era in immobilisation of upper limb fractures.

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Introduction: Conservative treatment is the mainstay in treatment of distal radial fractures. There are several studies compare outcomes between different types of casting. None of these studies used a removable thermoplastic splint for the total period of immobilization. This study set out to review all the patients treated the new Fastform® splint.

Methods: This is a prospective observational study between November 2009 and May 2010. All patients had minimally displaced fractures of the distal radius. All patients were treated by a consultant orthopaedic surgeon prior to splint treatment. Children and open fractures were excluded. Patient had been reviewed in the outpatients with radiographs on 1, 2, 6 and 12 weeks after injury. Skin condition was assessed on splint removal. Radiological outcome was assessed. Radial inclination, radial length and palmer tilt were measured.

Results: In total 31 patients were treated with the splint but 5 were excluded. The average age of patients is 43.81 (range 21–73) and male to female ratio is 12:14. On average, Fastform® splint was removed at 5.1 weeks (mode = 6 weeks). The right to left side ratio 11:15 and 11 of them had injury to their dominant hand. There was no significant difference in the radiological outcomes pre and post splinting (Table). Nearly all patients had been satisfied with the. A minor cast complication was found in two patients. 23 patients were able to shower whilst in splint.

Conclusion: Patient treated with Fastform cast showed no deterioration in their radiological outcomes. Nearly all the patients had been satisfied with the cast. The fact of adjustability and easy removability might suggest that the cast is suitable for wide spectrum of people.

Conflict of interest: None.

Disclosures: None.

Patients demography

Number Of Patients	26
Mean (range) age in years	45.13 (21–73)
Men:women	12:14
Dominant side injury	11
Non-dominant site injury	15
Average duration of treatment (range)	5 weeks (4–6)

Radiological outcomes

	On starting of Fastform splint	On removal of Fastform splint
Average radial inclination (°) (Confidence interval) $P = 0.307$	16.072 (14.989–17.155)	14.925 (14.522–16.959)
Average radial length (mm) (Confidence interval) $P = 0.1513$	9.604 (8.573–10.635)	14.925 (4.702–25.148)
Average palmer tilt (°) (Confidence interval) $P = 0.3342$	5.002 (1.133–8.870)	4.635 (0.978–8.291)

67. Outcomes of clavicular hookplate fixation for lateral (Neer type II) clavicle fractures: a single centre experience of 36 cases

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Introduction: There is controversy with the use of the AC hookplate for the treatment of lateral third clavicle fractures (Neer type II). This

is thought to stem from problems associated with the hookplate causing impingement systems which can cause long term limitation of movement with pain.

Aim: To evaluate the functional outcomes of patients with lateral third clavicle fractures treated with the hookplate.

Methods: We retrospectively reviewed all patients who underwent surgery from July 2005 to October 2010 using our prospectively recorded electronic patient information database. All patients were assessed in clinic to carry out both an Oxford and Constant shoulder score.

Results: In total we identified 36 patients who underwent surgery with the hookplate. 26 patients were male, 46% were smokers with a mean age of 36.2 years (22–60 years). Median length of hospital stay was 2 (IQ range = 1–3). Median follow-up was 22 months (IQ 17–31). Median time from date of injury to surgery was 7 days (IQ = 4–76). Mean time to union was 3 months (IQ = 2–4). For Oxford and Constant scores see Table 1. In total 85% of plates were removed. Median time to removal was 4.5 months (IQ = 3–8.75). There were no complications. Two patients presented months later after falls with fractures around the medial end of the hookplate.

Conclusion: Hookplates are an effective form of treatment for distal third clavicle fractures. Best outcomes are seen when removal of the plate is done before 6 months post surgery, provided the fracture has healed.

Conflict of interest: None.

Disclosures: None.

Table 1

Scoring System	Median follow-up	Mean (for all pts)	Time to removal of plate			Statistical significance
			<6 months	>6 months	Not yet removed	
Oxford shoulder score	22 months (IQR = 17–31)	43.8 (38–48)	47.2 (45–48)	41.5 (38–48)	40 (38–42)	$P = 0.0178$
Constant shoulder score	22 months (IQR = 17–31)	83.8 (44–100)	98 (88–100)	76.5 (64–100)	65.3 (44–80)	$P = 0.0135$

68. The use of Skype in orthopaedic research: a functional outcome comparison study of outpatient versus Skype follow-up of patients undergoing clavicular hookplates

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Background: Skype is a free online software program which enables users to carry out free live video calls. Research projects are limited by difficulty with follow-up, to establish functional outcomes. Questionnaires are current second best, however, are subjective.

Aim: To evaluate the accuracy of Skype in assessing functional outcomes from patients undergoing AC joint hook-plates for lateral third clavicle fractures and to validate it as a novel research technology.

Methods: Retrospective review of all AC joint hook-plates for lateral third clavicle fractures from July 2005 to October 2010. Compared a Skype based with outpatient based assessment using oxford and constant scores and satisfaction questionnaire.

Results: Out of 36 patients (mean age 36.2 years), 35 had a computer, 33 had broadband internet access, 31 with a video camera and 20 were regular users of Skype. After discussion a total of 27 patients were happy to take part in Skype assessment. Mean Oxford score was 43.8 (38–48) and mean constant shoulder score was 83.8 (44–100), there was no statistical difference when examined in outpatients compared with on Skype ($p = ns$) (see Table 1). 95% of patients preferred the use of Skype for follow-up, because (1) it was more convenient (2) cost saving of not travelling to hospital.

Conclusion: Skype allows as accurate follow-up of patients post hook-plate insertion and for research projects as an outpatient review. This is the first description in the medical literature to date. This novel technology's use is limitless and should be extended to other areas.

Conflict of interest: None.

Disclosures: None.

Table 1

Scoring system	Mean outpatient score	Mean Skype score	Statistical significance
Oxford shoulder score	43.8	43.2	$P = ns$
Constant shoulder score	83.8	83.1	$P = ns$

69. Suprascapular nerve injury during glenoid component insertion in reverse geometry total shoulder replacement: a cadaveric model

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Background: Reverse Geometry shoulder replacement requires fixation of a base plate (called a metaglène) to the glenoid to which a convex glenosphere it attached. Most systems use screws to achieve this fixation. The suprascapular nerve passes close to the glenoid and is known to be at risk of injury when devices and sutures are inserted into the glenoid. We investigate the risk posed to the suprascapular nerve by placement of metaglène fixation screws.

Materials and methods: Ten cadaveric shoulder specimens were used. A metaglène was inserted and fixed using four screws. The suprascapular nerve was dissected and its branches identified. The screw tips and their proximity to the nerve and branches were identified and recorded.

Results: The superior and posterior screws posed most risk to the suprascapular nerve. He nerve was impaled by the posterior screw on 4 occasions and being within 5 mm of the nerve or a branch in 5 others. The superior screw was extra osseous on 4 occasions, making contact with the nerve on 3 of those 4 specimens and being within 2 mm of it on the 4th.

Conclusion: Metaglène fixation using screws poses a significant risk to the suprascapular nerve. Caution should be used when inserting the posterior and superior screws in particular. Short locking screws may allow adequate fixation while minimizing the risk of neurological injury.

Conflict of interest: None.

Disclosures: None.

70. A new surgical approach to preserving the pronator quadratus for volar plating of the distal radius

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Fractures of the distal radius account for up to 15% of all extremity fractures, and are among the most common orthopaedic injuries seen in the emergency room. Over the past 3 decades, there has been a shift in attitude with respect to the treatment of these fractures. Where once patients were thought to do well with nonsurgical treatment, growing appreciation for the need to restore anatomy—especially with respect to radial volar tilt, length, articular step-off and gap displacement—has led to the development of various surgical techniques to treat these fractures. Consequently, volar plating of the distal radius has become a common procedure. The approach traditionally involves dissection of the pronator quadratus (PQ), repair of which can be prone to dehiscence, which can lead to complications.

The distal anatomy of the brachioradialis (BR) has only recently been elucidated. Its insertion is located on the proximal 1/3–1/2 of the base of the first dorsal compartment. It is bordered by bony protuberances that give rise to the volar and dorsal septal attachments of the first dorsal compartment. The PQ is also attached to the volar septum on the radial side. In this paper, a novel surgical approach to volar plating utilizing this new understanding is detailed. This technique allows utilization of volar and radial pillar plating through one incision, while allowing simple yet sturdy reattachment of the PQ. We have termed the technique the “radial pillar” approach.

Conflict of interest: I hereby attest the fact that there is no conflict of interest exists undertaking this study—in terms of objective, study design and recommendations.

Disclosures: This is also to confirm that there is, to the best of my knowledge, no particular information or assets for disclosure that may give raise to actual or potential conflict of interest in publishing this study.

71. Dressing a surgeon! Patient attitudes to surgeons attire in a national orthopaedic hospital

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Cappagh National Orthopaedic Hospital, Finglas, Dublin 11

Many members of the surgical community believe that surgeons should maintain professional standards by wearing formal and traditional dress (shirt, tie and white coat) while seeing patients outside of the operating theatre. This study assessed patients' attitudes to their surgeon's attire and whether their perception of the care they receive is affected by what their surgeon is wearing.

Cappagh National Orthopaedic Hospital (CNOH) introduced a no white coat, no tie and short-sleeved shirt only clothing policy from 01/07/2010. Patients attending CNOH over a 2 month period since then were given a previously validated questionnaire, assessing their attitudes to various forms of surgical attire.

502 patients returned the questionnaire. The majority of patients felt that it is acceptable for surgeons to wear surgical attire while seeing patients outside of the operating theatre. 57% of patients felt surgeons should wear a white coat when seeing patients. Only a very small percentage of patients felt that what a surgeon is wearing influences their opinion of the care that they receive.

Patients do not have strong preferences as to what surgeons wear and most believe that a surgeon's choice of clothing does not relate to the quality of care given.

Conflict of interest: None.

Disclosures: None.

72. Is the case report fractured? In defence of the orthopaedic case report

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The case report is the oldest form of documented scientific evidence, but is slowly disappearing from the surgical literature. Some journals now no longer accept case reports for publication, due to their low level of evidence. Many in the scientific community believe the case report is no longer a valuable source of research dissemination. This study analyses trends in published case reports in leading orthopaedic journals over a 2 year period.

The 4 orthopaedic journals JBJS Am, JBJS Br, American Journal of Sports Medicine, and Clinical Orthopedics and Related Research (CORR) were examined for all case reports published in the years 2009 and 2010. We assessed these articles with regard to country of origin, number of authors, originality of report, number of references, and length of report.

157 case reports were analysed from the four journals over the 2 year period. Author numbers ranged from 1 to 7 and was noted to be higher in case reports originating from the United States. All of the reports originated from thirteen different countries. 23.5% of all case reports documented a unique occurrence. Cited references ranged from 2 to 25 with most articles being less than 2 pages in length.

The case report remains an important method of publishing on rare conditions in the orthopaedic literature. We suggest that placing limits on the number of authors, length of report and number of references may help restore surgeons' confidence in the value of the case report.

Conflict of interest: None.

Disclosures: None.

73. An unusual complication of anaesthesia

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We present the case of a 66 year old female who presented as a day case for an elective knee arthroscopy who developed a tracheal perforation post intubation. She was intubated following two unsuccessful attempts at LMA insertion. The patient did not have any recognized risk factors for tracheal wall weakness and the total anaesthetic time was only 30 min. The perforation became clinically evident 2 h post extubation when following an episode of vomiting, the patient developed dyspnoea and surgical emphysema.

Chest X-Ray revealed a pneumopericardium and supraclavicular emphysema. CT thorax revealed a small, posterior, upper tracheal wall tear.

The patient was managed conservatively in consultation with both the ENT and cardiothoracic teams and she was discharged home 3 days later.

This rare but potentially fatal complication of intubation has no known incidence and may be under reported in the literature; however it is important that all hospital doctors are aware of the clinical signs

and potential complications which may arise in any post-operative or previously intubated patient. The majority of case reports of tracheal perforation following anaesthesia in the literature have been treated surgically, however, this is an example of a case treated conservatively with a successful outcome.

Conflict of interest: None.

Disclosures: None.

74. Will medical schools start using ultrasound machines to teach undergraduate medical students anatomy? Student feedback from the Department of Anatomy, RCSI

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Limerick*, Department of Anatomy, RCSI, Dublin 2***

Introduction: Recent evidence regarding the undergraduate teaching of anatomy suggests that clinically focussed teaching packages would be welcomed by students [1]. This project aimed to teach anatomy in an innovative way using ultrasound to identify upper and lower limb structures. Student feedback was sought.

Methods: During the 2009 winter term two interactive teaching sessions were delivered to the first year students enrolled in the graduate entry programme of RCSI Medical School in the Department of Anatomy. Each session commenced with a synopsis of basic ultrasound imaging principles. An *S-Nerve Sonosite*[®] ultrasound machine was used by the demonstrator to visualise upper and lower limb structures on student volunteers. These images were projected onto the large lecture theatre screen using the USB port of the portable ultrasound machine. Students were then given the opportunity to use this technology to demonstrate anatomical structures on themselves and their peers. A feedback questionnaire was supplied.

Results: 44 questionnaires were returned. 86.4% of responders agreed that ultrasound helped them to better appreciate the variability of human anatomy and 88.6% foresaw themselves using it as an imaging modality in their clinical practice post graduation. 95.5% agreed that the lecture series was useful and worthwhile. 15.9% of the group accepted that ultrasound made learning anatomy more confusing. 29.5% of survey responders believed that the lecture series should be left until the clinical years, however, 84.9% agreed that medical school anatomy courses would benefit by the inclusion of an ultrasound guided component. Feedback indicated that those attending the series would have appreciated more supervised hands-on experience with the ultrasound machine.

Conclusion: The utility of ultrasound lies in its ability to provide around-the-clock bedside real time information in a minimally invasive fashion [2]. This project provides further evidence that modern undergraduate medical students appreciate clinically focussed anatomy teaching packages and anticipate the use of this technology as a diagnostic tool in their future practice.

References:

1. Dawson AG et al. (2009) Student views on the introduction of anatomy teaching packages into clinical attachments. *Clin Anat* 22(2):267–272
2. Harmon DF et al. (2008) Perioperative diagnostic and interventional ultrasound. Saunders Elsevier Ch 9:89.

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Mr John Walsh, Fannin Healthcare for the provision of a portable *S-Nerve Sonosite*[®] ultrasound machine during each of the teaching sessions.

75. Image quality and intubating bronchoscopes

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Introduction: Fibre-optic bronchoscopes have made a significant difference to the management of difficult airways in anaesthesia. The Difficult Airway Society Recommends that they are available for rapid use in anaesthetic departments. The ability to intubate is dependent on the image quality. Following a clinical incident in our department, we decided to assess the impact of light source on image quality.

Methods: Using a standardised camera attachment and recording system, intubating bronchoscopes from the teaching hospitals in the South of Ireland area were assessed. Photographs were taken in an airway mannequin at 10 cm above the vocal cords and 2 cm above a standardised piece of text in the left main bronchus with a portable light source and again with a light attachment cable. The two sets of photographs were then shown to anaesthetists in a blinded fashion and they were asked to compare quality for intubation purposes.

Results: The difference in quality using a light cable was dramatic compared to the portable light source. All anaesthetists rated the images taken with the light cable attachment as superior and more likely to succeed with intubation. Overall the best image quality was with the Olympus built-in video fibre-optic scope.

Discussion: Image quality is essential for management of the difficult airway. We clearly demonstrated that image quality is clinically superior when using a light attachment cable compared to the portable light sources that are currently in use. It can also significantly improve the image quality of a scope otherwise rated as having a poor image. This has implications both for ease of intubation, extended scope life and patient safety.

Conflict of interest: None.

Disclosures: None.

76. Audit of timing and mode of analgesia and BAEM guidelines in patients presenting to St James' emergency department with fractured neck of femur

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We carried out an audit of 44 patients presenting to St James' emergency department with fractured neck of femur.

Patients were categorised based on presenting pain scores at triage into moderate and severe, and timing and mode of analgesia was analysed in each case and compared to those expected standards set out by the British association of Emergency medicine.

According to these guidelines, 50% of those patients in severe pain i.e pain score (7–10), should receive appropriate analgesia within 20 min of triage, 75% within 30 min and 98% within 1 h of triage.

75% of those in moderate pain, i.e. pain score (4–6), should receive analgesia within 30 min of triage and 98% within 1 h of triage.

Patients were also categorised into whether they received simple or opiate analgesia depending on severity of pain.

We also compared time elapsed to performance of x ray, to those expected BAEM standards.

Finally, we assessed feasibility of performing a femoral nerve block for analgesia in the busy setting of an emergency department.

We found that our results fell far short of those recommended BAEM standards.

Of those in severe pain, 6.7% received analgesia within 20 min, compared to expected 50%, 27% received analgesia within 30 min compared to 75% expected, and 40% within 1 h compared to 98% expected.

Of those in moderate pain, 19% received analgesia within 30 min and 30% within 60 min, in contrast to 75% and 98% expected, respectively.

Only 18% of patients audited had x ray within 60 min of arrival, compared to 75% expected.

We also found that 7% of those in severe pain received simple analgesia while 93% received opiate analgesia. Of those in moderate pain, 26% received simple analgesia while 70% received opiate analgesia.

Our results fell short of those expected according to recommended BAEM standards and measures should be put in place to improve upon observed results. Choice of analgesia was also interesting in that the majority of patients received opiate analgesia without following multimodal approach to pain management.

The feasibility of performing femoral nerve block was also assessed.

Conflict of interest: None.

Disclosures: None.

77. Ultrasound-guided scapulocostal syndrome injection technique

C. McCarthy, G. Weeks, V. Alexiev, S.Z. Ali, D. Harmon

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We describe a case report and previously unreported technique for using a portable ultrasound scanner and a linear transducer (4–5 MHz) (SonoSite Micromaxx SonoSite, Inc. 21919 30th Drive SE Bothwell W. A.) to guide scapulocostal syndrome injection. A 43 year old female presented with chronic pain in the posterior thoracic spine and pain radiating in the right upper limb. Tenderness was centered under the upper medial aspect of her right scapula. For the ultrasound-guided serratus posterior superior muscle injection the patient was placed in the prone position. The ultrasound transducer was oriented in a transverse orientation at the level of the level of C6–T1 vertebrae. Here the serratus posterior superior muscle attaches to the lower portion of the ligament nuchae and the intervening interspinous ligaments. The muscle fibers run inferiorly and laterally to attach to the 2nd–5th ribs which were identified along with the lateral portion of the serratus posterior superior which is covered by the scapula. Real-time imaging was used to direct a 22G spinal needle into the trigger points of the serratus posterior superior, where local anaesthetic and tramcinalone solution was injected under direct vision. The patient's pain symptoms improved significantly allowing a return to work duties. Ultrasound guidance does not expose patients and personnel to radiation, and is readily accessible. Ultrasound-guided injections have particular applications in the management of Scapulocostal syndrome.

Conflict of interest: None.

Disclosures: None.

78. Analgesic effect of deep peroneal nerve block and metatarsalgia

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Metatarsalgia is a common cause of foot pain. It is described as pain localised over the plantar metatarsal head region. The use of metatarsal pads or other orthotic devices along with standard analgesic regimens are the mainstay of treatment [1]. The deep peroneal nerve provides sensation to the metatarsal joint of the great toe and the metatarsophalangeal joints of the lesser toes. We propose that blockade of this nerve may provide pain relief in this condition.

A 57 year old lady presented to our chronic pain clinic with a 2-year history of pain along the plantar surface of her left fore foot. The pain was 6/10 in severity, sharp, aggravated by walking and partially relieved by rest and diclofenac. The patient's foot was tender over the plantar surface of the metatarsal heads. Maximum tender point was over the first metatarsal head. The patient had received previous metatarsophalangeal joint local anaesthetic injections which resulted in partial pain relief for 1-week. These findings confirmed a diagnosis of Metatarsalgia. With written informed consent a left sided deep peroneal nerve block was performed under ultrasound guidance using 5 millilitres of 0.25% Levobupivacaine which resulting in immediate pain relief. At 4 weeks and 3 months later the patient reported continued complete pain relief with cessation of analgesic use.

Therefore, we propose that previously unreported blockade the deep peroneal nerve has an analgesic effect in metatarsalgia. The ultrasound guided technique, which is likely to be important, will be presented.

Reference:

1. Kang JH, Chen MD, Chen SC et al (2006) Correlations between subjective treatment responses and plantar pressure parameters of metatarsal pad treatment in metatarsalgia patients: a prospective study. *BMC Musculoskelet Disord* 7:95

Conflict of interest: None.

Disclosures: None.

79. Analgesic effect of ultrasound guided pudendal nerve blocks in interstitial cystitis

L. Lean, G. Weeks, V. Alexiev, S.Z. Ali, D. Harmon

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Interstitial cystitis is a chronic, debilitating, multifactorial syndrome characterized by pelvic and/or perineal pain, urinary urgency and frequency, and nocturia [1]. Treatment primarily involves pharmacological, life style and physiotherapy interventions. Pain intervention treatments include sacral root and pudendal nerve stimulation. We report a case series of the effectiveness of ultrasound guided bilateral pudendal nerve blocks.

Three adult patients with a confirmed diagnosis of refractory interstitial cystitis provided written informed consent for bilateral

puddendal nerve blocks. Real-time imaging was used to direct a 22G spinal needle in proximity to the pudendal nerves at the ischial spine, where local anaesthetic and triamcinalone solution was injected. Injections were performed sequentially. The patient's pain and urinary symptoms improved. Beneficial effects were persistent at 3-month follow-up. Ultrasound guidance does not expose patients and personnel to radiation, and is readily accessible. It is a much simpler and a more cost effective treatment than sacral or pudendal nerve stimulation.

Therefore, we propose that previously unreported blockade the pudendal nerves has an analgesic effect in interstitial cystitis.

Reference:

1. Curtis Nickel J (2000) Interstitial cystitis. Etiology, diagnosis, and treatment. *Can Fam Phys* 46:2430–2440

Conflict of interest: None.

Disclosures: None.

80. An atypical presentation of ruptured thoracic aneurism

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Ruptured thoracic aneurysm is an uncommon surgical emergency. The estimated incidence is 3.5 per 100,000 patients. The described presentations include chest pain, shock and pulmonary edema (related to the loss of cardiac output and/or the congestive heart failure due to hypovolemia, cardiac tamponade, aortic valve insufficiency or flow obstruction in the aorta); dyspnoea, cough or wheezing (secondary to the compression of the trachea); dysphagia (related to the compression of the oesophagus); hemoptysis or hematemesis (due to erosion, respectively, into the trachea or the esophagus); hoarseness due to recurrent laryngeal nerve or vagus compression.

We describe a case of atypical presentation of ruptured thoracic aneurysm. 64 year male presented to the Accident and Emergency department with mild stridor, shortness of breath, chest pain and feeling of obstruction at the level of the upper airway. Vitals were stable, as was as SaO₂. He denied any allergies. He was treated as suspected laryngeal edema, received antihistamine and steroid with good response. A workup was initiated regarding chest pain. The intensive care team was contacted regarding airway management, when assessed there was no stridor, the sensation of dyspnoea had disappeared and the vitals were stable. Subsequent review by the ENT team showed mild supraglottic edema. The medical workup suggested the possibility of a dissecting thoracic aneurysm (chest X-ray

changes) and an urgent CT thorax was arranged which confirmed the diagnosis. In the CT scanner the patient collapsed and intensive care support was initiated. The patient became progressively unstable and repeatedly required CPR. After discussion with the vascular team attempt at transfer to a cardiothoracic surgical center was deemed futile and resuscitation was stopped.

While some of the presenting symptoms (chest pain, shortness of breath) were suggestive of cardiovascular etiology, the dominant complaints (sensation obstruction at the laryngeal level and mild stridor) were indicative of an airway problem. Both diagnostic avenues were pursued. In retrospect we feel the initial subjective improvement after the antihistamine therapy may have been related to its sedative effect. The quick disappearance of the mild stridor points to the possibility that the stridor was indeed related to hyperventilation due to anxiety. The ENT assessment suggested mild edema. This may be related to the changes in the thorax (increased mediastinal pressures due to the aortic bleed with transmission of the pressure to the neck tissue planes, impaired venous return, nerve structures compression, etc.).

Conflict of interest: None.

Disclosures: None.

1. A patient satisfaction study in an emergency department and a surgical assessment unit

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Overcrowding in Emergency Departments (EDs) is well recognised. To help ease this in our institution a Surgical Assessment Unit (SAU) allows for patients to be referred directly from the Primary Care and other sources for assessment directly by senior surgical staff. We sought to compare patients' experiences in this unit with those surgical patients who are assessed in ED.

A Patient Satisfaction Scoring questionnaire was distributed to 115 consecutive surgical patients attending the SAU and ED over an 8 week period. Patients' impressions of waiting times, pain management and interactions with staff were detailed. The actual times taken for assessment, admission and discharge were recorded and compared with those perceived by the patients.

The Surgical Assessment Unit is highly effective in the prompt assessment of surgical patients and those patients are extremely satisfied with the service. Despite longer waiting times surgical patients seen in the Emergency Department were predominantly satisfied with their time spent there.

Conflict of interest: None.

Disclosures: None.

	Patient satisfaction		"I should have been seen sooner"*	"I was seen (triaged) in < 15 min"*	Actual mean triage time	"I was admitted/ discharged within 4 h"*	Actual mean time to bed/discharge
	Very good	Excellent					
SAU	18.3%	77.4%	9.1%	93%	6 ± 2 min	77%	4.8 ± 1.1 h
ED	31.0%	54.8%	31.6%	47.6%	19 ± 7 min	5%	12.2 ± 3.5 h

* Denotes questionnaire response.

2. The financial impact of generic drug under-prescription in a general surgery unit

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Introduction: Brand name drugs are typically more expensive than their identical generic equivalents. With a planned 1 billion saving needed from the non-salary portion of the health care budget we must examine strategies that do not interfere with patient care.

Methods: A retrospective review of all patients discharged from a general surgery department over a 3 month period commencing July 2010 was undertaken. Patients medical charts and discharge summaries were assessed for both generic and trade drugs prescribed at time of patient discharge. A cost analysis performed to determine potential cost savings. Drug costs were calculated according to MIMSTM July 2010 Edition.

Results: A total of 567 consecutive inpatient charts were assessed. In total 345 (60.8%) patients were prescribed 578 medications at time of discharge. Proton pump inhibitors (PPI) were most commonly prescribed ($n = 124$, 21.5%). Trade-name drugs accounted for 171 (29.6%) of all prescriptions, with the mean cost per tablet 95.88 cent. Switching to generic prescribing would have resulted in a decreased overall cost per tablet of 4.4%. A subgroup analysis demonstrated that over one-third of prescribed PPIs ($n = 44$, 35.5%) used the trade name. The mean cost per PPI tablet was 94.13% per tablet. Had a generic name PPI been prescribed where available this would have resulted in a mean PPI cost of 83.94 cent per tablet, representing a potential saving of over 10%.

Conclusion: These data suggest significant potential cost savings are possible. Such savings would reduce other potential cuts which may impact on patient care.

Conflict of interest: None.

Disclosures: None.

3. The role of renal embolisation in the management of renal cell carcinoma: single centre experience

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Objectives: To review our experience with renal artery embolisation (RAE) performed in our institution over the period of 3 years. **Methods:** From February 2007 to March 2010, 11 patients underwent RAE. Retrospective analysis was performed including medical chart review. Data includes indication for embolisation and patient parameters are included. **Results:** Eleven RAE were performed (eight males and three females, mean age 63 years (range 40–88)). All RAE were for tumour (10 primary RCC, 1 metastatic). 5/11 RAE was performed to control persistent haematuria in advanced disease. Three patients had metastases (2/3 para-aortic, 1/3 pulmonary nodules), 4 had renal vein invasion (4/4 T3b). Following RAE haematuria abated in all patients. 2/5 (40%) in this group experienced post embolisation syndrome. Pain was managed successfully with oral opioids and NSAIDs and pain abated after 24 h. Pre-operative embolisation (POE) was performed in 6/11 prior to radical nephrectomy in organ confined disease (six left sided, five right sided). This was due to perceived technically difficult

nephrectomies and evidence of heavy neo-vascularisation on pre-operative imaging. All POE were performed within 4 h of surgery and there were no immediate complications. The average tumour size was 9.4 cm (range 7–13.2). Three patients had documented post-operative blood loss requiring transfusions. These three cases had markedly vascular tumours with renal vein invasion and the nephrectomy proved to be technically difficult.

Conclusions: Renal artery embolization has a role in the management of RCC in those inoperable tumours with significant haematuria or pre-operatively in large vascular tumours.

Conflict of interest: None.

Disclosures: None.

4. Training surgical residents increases mental strain: a prospective study of heart rate variability in endocrine surgery

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Introduction: Supervision of surgical trainees is perceived as a stressful undertaking, particularly in technically demanding procedures, such as thyroidectomy. The aim of this study was to determine whether the mental strain, as measured by heart rate variability (HRV), in endocrine surgeons varied in relation to their surgical role as primary operator or assistant.

Methods: A prospective study of HRV in surgeons undertaking endocrine cases was performed. Two consultant surgeons and three endocrine fellows, alternating roles as primary surgeon and assistant participated. HRV was measured during dissection around the recurrent laryngeal nerve, using the Polar Heart Rate monitor. HRV was determined by power spectral analysis as heart rates (bpm), high and low frequencies (HF/LF) and LF/HF ratio.

Results: HRV data was collected in 100 elective total thyroidectomy procedures. Of these, fellows performed 50 as primary operator and 50 as assistants in a cross over design. The mean heart rate of fellows was significantly greater when acting primary operators (83 bpm) when compared to assisting (71 bpm; $p < 0.001$). In consultant surgeons, teaching was associated with a significantly higher LF/HF ratio when compared to primarily operating (188.34 vs. 99.75%; $p = 0.002$). For both groups energy expenditure was greater in the role of primary operator as compared to assistant (112.26 vs. 186.7 kcal; $p = 0.04$).

Conclusions: Fellows demonstrated increased levels of stress when acting as primary operators compared to assisting. The teaching of complex endocrine surgical procedures is associated with a measurable increase in mental strain, as determined by HRV.

Conflict of interest: None.

Disclosures: None.

5. MDM Audit Breast Surgery Unit, Mid-Western Regional Hospital, Limerick

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Aim: To evaluate on going multi-disciplinary meeting and to identify areas that require further work to improve services in the Breast Surgery Unit at Mid-Western Regional Hospital, Limerick.

Methods: A retrospective review of multi-disciplinary meetings for 6 months from Jan 2010 to June 2010 was done.

Results: In 6-month period Multi-disciplinary meeting was conducted regularly on a weekly basis.

601 patients were discussed in 26 multi-disciplinary meetings, maximum number of patients discussed per meeting was 36, minimum number of patients was 7, on an average 23 patients per meeting were discussed.

313 cases (52.07%) were found to be benign, 277 cases (46.08) were diagnosed as malignant, and 11 cases (1.8%) were equivocal and required further biopsy.

Data recording was appropriate in 582 patients (96.83%) and incomplete in 19 (3.16%) cases of these patients had information not recorded, either clinical, radiological, pathological or decision taken.

Attendance of core personnel (surgeons, radiologists, oncologists, mammographers, data recording staff were 100%. Breast care nurses and NCHDS were also present 100%.

Decision from Multi-disciplinary meeting were communicated to all of the patients after the meeting (100%).

Conclusion: Multi-disciplinary meeting was conducted regularly on weekly basis.

Attended by core personnel and medical staff regularly. Decisions were taken in almost all the patients and communicated to all the patients after the meetings.

Conflict of interest: None

Disclosure: No funding was received for this study.

6. Self expanding metal stent placement by colorectal surgeons in the management of obstructing colorectal cancers

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Colorectal cancer presents acutely with obstruction in approximately 30% of cases. Emergency surgery is associated with significantly higher rates of complications and stoma formation. Placement of a self-expanding metal stent may obviate emergency surgery, potentially effectively palliating incurable cancers and acting as a bridge to surgery in patients with operable tumours.

A database was prospectively compiled from 2006 to present of all patients having stent placement for an obstructing colorectal tumour. Stents were placed under endoscopic and fluoroscopic guidance by a consultant colorectal surgeon.

35 patients (22 M, 13F; mean age 69, range 34-91) had stents placed. 31/35 (89%) patients had left-sided disease (splenic flexure and distal). 4 (11%) had more proximal tumours: two transverse, one hepatic flexure and one right colon. The indication was palliative for 28 patients (80%). Stenting as a bridge to surgery was performed for the other 7 patients (20%).

Successful decompression was achieved in all 35 patients (100%). Of the 7 patients who proceeded to resection, 5 are currently alive and disease-free (1, 9, 10, 18 and 39 months postoperatively); two have since died (3 and 14 months post surgery—both T3 N1 M0). No significant morbidity was observed related to stent placement. However, 3 patients with palliative stenting subsequently required defunctioning stoma formation (2, 3, and 10 months post stent insertion) due to local tumour progression.

When performed by experienced colorectal surgeons, stent insertion is safe and effective either for palliation or as a bridge to resection in the treatment of obstructing colorectal cancer.

Conflict of interest: None.

Disclosures: None.

7. The untold truth about “Bath Salt” highs: a case series

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Prior to the introduction of legislation in May 2010, psychoactive cathinone derivatives were readily available in “head-shops” across Ireland. Marketed as bath salts, these inexpensive substances, which create euphoric effects, were increasingly used by intravenous drug abusers. We present four cases that presented to our hospital with soft tissue complications as a direct result of this practice.

Intravenous drug users who presented to St. James's Hospital Dublin Emergency Department with soft-tissue complications following intravenous injection of cathinone derivatives over a 4-month period in 2010 were followed prospectively over the course of their admission. Patient demographics, mechanism of injury, presentation, management and outcomes were recorded. Photographs at different phases of treatment were also taken.

The spectrum of the cases encountered ranged from self-limiting cellulitis to extensive abscess formation necessitating radical debridement.

This group of patients is undoubtedly a challenge, as they frequently present late, abscond and re-offend. Conservative treatment is indicated in the absence of clinical evidence of compartment syndrome, necrotising fasciitis or abscess formation. However, frequently re-examination is necessary and evidence of progression or localising signs should prompt surgical debridement. Despite the banning of these psychoactive substances, it would not be a surprise that we will continue to see these self-inflicted injuries. It is crucial that careful history taking, examination and close observation continue to guide individual treatment plans as failure to do so could indeed be life or limb threatening.

Conflict of interest: None.

Disclosures: None.

8. Age related bone atrophy of the inferior maxillary bone: biomechanical considerations for fixation

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Atrophy refers to the degradation or breakdown of some part of the body. In this case, it refers to bone atrophy. This can be caused by a number of factors i.e. poor circulation, decrease in hormone input, poor nerve supply or loss of blood supply. In terms of the inferior maxillary bone, increased age can cause the teeth to be totally lost (edentulous) leading to bone atrophy in that area. This is due to various factors i.e. decrease in hormones, decreased mechanical stimulation (or exercise, movement) and also decreased blood supply.

Each of these, coupled with loss of teeth can lead to a gradual resorption of the alveolar ridge.

In terms of past studies in the area of age related bone atrophy of the inferior maxillary bone, many concern the reconstruction of the bone itself rather than biomechanical implications as a result of fracture or a fixation method [1]. Fixation methods often involved bone reconstruction such as grafting. This is usually performed to substitute for missing or resorbed bone and to allow for the fixation of endosseous implants. These grafts in turn support new singular tooth implants or retained dentures. Past studies are almost always clinical in nature therefore the effects of a particular method of fixation are assessed simply on the survival or failure of the chosen method rather than on any pre-surgical scientific validation.

This study involved the construction of an anatomically correct inferior maxillary bone model on which various biomechanical simulations could be carried out. A CT scan of a 65-year-old female patient with severe atrophy was reconstructed using specialist software known as mimics. This was then imported into computer aided modelling software, Pro/Engineer where an anatomical model was constructed based on the CT-Mimics model. The appropriate muscle forces and constraints were then applied and various simulations carried out [2].

Initial biomechanical results showed a large amount of displacement and bending at the angle/body regions. The left and right body displaced in a superior direction at its thinnest section. This displacement bending in turn caused a large build-up of tensile stress coupled with the relative muscle actions. If stress levels were exceeded, fracture may result.

The addition of a body fracture to the model caused the superior section of the mandible to remain almost stationary while the inferior section displaced downwards as a result of the powerful suprahyoid muscle action. A large build-up of tensile stress in the contra-lateral side to fracture also occurred due to inaction of the muscles on the side of fracture. Bone union for fixation would be difficult as a result.

Scientific investigations into the biomechanics of the mandible play a key role in pre-surgical planning for decision making in the application of certain fixation methods. Specifically in this area which fractures are an uncommon occurrence, additional information is significant.

References:

1. Madsen MJ, Haug RH, Christensen BS, Aldridge E (2009) Management of atrophic mandible fractures. *Oral and maxillo-facial surgery clinics of North America* 21:175-183
2. Kavanagh EP, Wallis F, McGloughlin T, Kearns G, Jarvis J (2010) Finite element analysis model development for an edentulous atrophic mandible: the bucket handle fracture. In: *Proceedings of the annual sylvester o' halloran surgical scientific meeting, Limerick, Ireland, March 5-6*

None of the authors have a conflict of interest.
No disclosures.

9. Pattern and outcome of preoperative ultrasonography on laparoscopic cholecystectomy

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Background: Some of the planned laparoscopic cholecystectomy may be difficult and may required experienced laparoscopic surgeon or possible conversion to open due to various factors; it will be useful in advance to recognise which one may require experience or

conversion. Gall bladder wall thickness on preoperative USG May presents with difficulty during surgery. Ultrasonography has been able to reliably detect gallbladder wall thickness.

Methods: From January 2009 to June 2010, total of 241 patients with symptomatic cholelithiasis were studied retrospectively. Radiology reports of preoperative ultrasonography were analysed for separate findings routinely reported by the radiologist. Patients were excluded from these studies if they have no ultrasound finding of cholecystitis and those that had no laparoscopic cholecystectomy.

Results: Of the 241 patients in this series 188 were female (78%) and 53 were males(22%) with mean age of 44 + 15, largest cohort of patients were between 31 and 40 years(29%), 32(13%) patients were done as acute cases while 209(87%) as elective cases. 90 patients had gall bladder wall thickness while 123 had only gallstones. The mean operating time was 60 + 15.6 min (range 30-140 min). 195(81%) of the laparoscopic cholecystectomy were done by consultants while 19% (46) were carried out by trainees under supervision. The length of hospital stay for half the patients was one day while 20% (48) did not required hospital stay. Most patients with preoperative ultrasound findings of gall bladder wall thickness stayed more than 3 days.

Conclusion: Preoperative ultrasonography in this clinical series was of significant value to the laparoscopic surgeon because the presence of gallbladder wall which is 3 mm or thicker in diameter alerts the surgeon of possibility of technical difficulty during laparoscopic cholecystectomy as a result of severe inflammatory response. Increased operative time was more associated with patients with gallbladder wall thickness hence gallbladder wall thickness can be a predictor of long operation time.

References:

- (1) Warshaw AL (1993) Factors associated with successful laparoscopic cholecystitis. *Ann Surg* 217:233-236
- (2) Ji W, Li LT, Li JS (2006) Role of laparoscopic subtotal cholecystectomy in the treatment of complicated cholecystitis. *Hepatobiliary Pancreat Dis Int* 5:584-589

Conflict of interest: None.

Disclosure: None.

10. Clinicopathological variables of BRCA 1 and 2 gene mutations in the west of Ireland population.

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Introduction: Despite accounting for just 5-8% of all breast cancer, the highly penetrant breast cancer susceptibility genes BRCA1/2 confer up to 20-fold lifetime risks of breast cancer. This highlights the importance of stratification in terms of referring patients for genetic counselling and/or expensive and time consuming mutation testing. Our aim was to address the clinicopathological variability of tumours associated with these mutations in the West of Ireland.

Methods: Patients with BRCA1/2 mutations were identified from the National Centre for Medical Genetics database between the years of 1994-2010. Statistical analysis was performed using unpaired t and Chi-squared tests.

Results: From a total of 256 referrals for genetic counselling, 127(50%) underwent mutation screening. Of these, mutations were identified in 39 (31%) patients- 20 of which were referred from Galway. Deletion of exons 1-23 in BRCA1 was the most frequently identified mutation, seen in four families. No distinctive BRCA2

mutation was identified. Twenty-five mutation carriers developed breast cancer, with BRCA1 tumours associated with ER negativity, and BRCA2 tumours associated with ER positivity ($p = 0.022$). Larger tumour sizes were seen in BRCA1 mutation related cancers ($p = 0.01$). Nineteen of twenty the BRCA1/2 mutation diagnoses were made after breast cancer diagnosis.

Conclusion: The findings of this cross-sectional analysis indicate that BRCA1/2 mutation testing is most relevant within a targeted population. This will contribute to a better understanding of inherited breast cancer risk for optimisation of future screening, therapeutic and prophylactic programs.

Conflict of interest: None.

Disclosures: None.

11. Construction of a novel bioreactor for urological tissue-engineering purposes

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Introduction: Tissue-engineered extracellular matrix (ECM) scaffolds provide an attractive alternative to conventional surgical techniques for bladder replacement therapy. Preconditioning cell-seeded ECM scaffolds in vitro by applying mechanical stimuli similar to native bladder tissue may play an optimisation role prior to in vivo implantation of an ECM scaffold.

Materials and methods: A urinary bladder bioreactor that simulates bladder filling was designed. The bioreactor gradually increasing the fluid pressure on ECM scaffolds from 0 to 10 cmH₂O over a 6-hourly preset duration via a regulator. Bladder emptying was simulated by decreasing the pressure from 10cmH₂O back to 0cmH₂O over a 10 s period. Attachment, viability and proliferative activity of HUCs seeded onto ECM scaffolds were evaluated under physiological bladder conditions and compared with standard static growth conditions.

Results: No significant difference in human urothelial cell (HUC) viability was detected in cell-seeded scaffolds cultured in static conditions versus mechanically stimulated cell-seeded scaffolds ($p > 0.05$). Furthermore, no significant difference was identified in the rate of HUC proliferation between both groups of cell-seeded scaffolds.

Conclusion: Although urinary bladder tissue bioreactors have generated broad interest from researchers their optimisation role prior to surgical implantation of an ECM scaffold remains limited.

Conflict of interest: None.

Disclosures: None.

12. A positive sentinel node, comparing the use of blue dye versus combined dye-isotope in predicting outcome of axillary clearance in breast cancer

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In patient whose sentinel lymph nodes are tumour free, a sentinel lymph node biopsy nullifies the requirement for axillary node dissection.

At present, axillary clearance remains the gold standard for patients who are sentinel lymph node positive. Although axillary node

clearance undoubtedly gives satisfactory regional control, it's long-term effect on survival has been questioned.

The objective of this study was to determine whether the use of blue dye versus combined dye/isotope in determining positive sentinel lymph nodes correlated to determining corresponding positive axillary lymph nodes.

Data was collected on 680 patients from 2004 to 2009 that had SLN biopsy. Combined dye isotope (CDI) was used with 424 patients, while blue dye (BD) alone was used with 256 patients to determine sentinel lymph node status. 14.18% of sentinel lymph nodes recovered using CDI contained tumour, while 15.65% of sentinel lymph nodes recovered using BD contained tumour. Of those that were 100% sentinel lymph node positive i.e. all sentinel lymph nodes removed were positive for tumour, 75% (9/12) of BD patients had corresponding axillary node positivity while 33% (1/3) were positive from CDI group.

Of those that were 50% sentinel lymph node positive i.e. halve of the sentinel nodes removed showed tumour, 50% (1/2) of BD patients had corresponding axillary node positivity while only 9% (1/11) were positive from CDI group.

We concluded that positivity of sentinel node identified by combined dye/isotope is more accurate predictive of the status of the axilla in our group.

Conflict of interest: None.

Disclosures: None.

13. Aortic valve replacement surgery in the elderly: is it worth it?

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As life expectancy has improved; a greater number of elderly patients are being diagnosed with degenerative aortic valve disease. Aortic valve replacement (AVR) surgery has been shown to improve life expectancy and quality of life compared to untreated patients. However a significant number of elderly patients have traditionally been refused surgery on the basis of their age and decreased left ventricular function [1]. However, less invasive techniques to date are still lacking. With a paucity of studies done in Irish patients, we set out to review our cohort of patients undergoing AVR. We carried out a retrospective review of electronic surgical registry of patients who underwent AVR from October 2007 to June 2010 in the newly formed west of Ireland cardiac surgery unit at Galway. A total of 107 patients underwent AVR, either alone or as part of a combined procedure. At the time of surgery 32% ($n = 35$) were aged 75 years or older. Sixty-eight (64%) were male and 39 (36%) were female. Valve pathology was mainly degenerative calcific stenosis (77%), with the remainder comprising of aortic incompetence (10%) and mixed aortic disease (13%). Twenty patients had a decreased pre-operative ejection fraction of 50% or less. Ninety-two (86%) were deemed as higher risk candidates with a peri-operative mortality risk score (EuroScore) of 4 or greater. Overall in-hospital perioperative mortality rate was 2% ($n = 2$), with a further 4 late deaths occurring during the study period. Our experience shows good short/mid-term results for AVR in patients over 75 years of age.

References:

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2. Ferrari E, Tozzi P, Hurni M et al (2010) Primary isolated aortic valve surgery in octogenarians. *EJCTS* 38:128–133

	<75 years	75–79 years	≥80 years
Number	72 (67.3%)	26 (24.3%)	9 (8.4%)
Left ventricular ejection fraction (mean)	53%	52%	50%
EuroScore (mean)	5.6	7	7.7
1 year mortality	3 (4%)	2 (5.7%)	0

Conflict of interest: None.

Disclosures: None.

14. Laparoscopic colorectal resections

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Introduction: Laparoscopic colorectal resection has been shown to offer many benefits over traditional procedures including; reduced incision size, reduced post operative pain, shorter duration of post operative ileus, reduced hospital stay and lower frequency of ICU admissions. We present our experience with 100 cases.

Methods: All our cases involving colorectal resection between August 2009 and September 2010 were retrospectively reviewed. A total of 101 laparoscopic colorectal resections were identified within this time period.

Results: Total number of patients was 101, this was comprised of 36 right hemicolectomies, 28 anterior resections, 12 sigmoid colectomies, 8 abdominoperineal resections, 7 left hemicolectomies. Further to this we performed 4 small bowel resections, 3 total colectomies, 2J pouch creations, and 1 panproctocolectomy.

Postoperative complications included 5 cases of ileus, 1 anastomotic leak, 2 patients required reoperation and 3 cases were converted to open.

Discussion: Laparoscopic colorectal resection is a safe and feasible option for a multitude of colorectal pathologies. It has offers many advantages over traditional surgery, while allowing equivalent surgical procedures to be performed, with minimal access techniques.

Conflict of interest: None.

Disclosures: None.

15. Aortic transection: a ten year review of surgical and endovascular management at a tertiary referral centre

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Introduction: Acute traumatic aortic transection (ATAT) is frequently catastrophic. Recent advances have resulted in a shift from surgical to endovascular repair.

Methods: A retrospective review of ATAT over a 10 year period in a single institution was conducted. Between 2001 and 2006 8 patients underwent surgical repair. Since 2006, all ATAT ($n = 14$) have been managed endovascularly. Results are reported as mean \pm SD.

Results: Of 22 patients, 19 were male and 3 female. Mean age was 35.1 ± 18 . Road traffic accidents (RTAs) accounted for 19 (86%). All patients had associated injuries—thoracic(20), orthopaedic(16), neurological (10; 3 spinal cord transactions), and abdominal (4)—with 13 patients requiring additional surgical interventions for these injuries. Time from injury to treatment of the aortic transection ranged from 7 h to >8 days.

In the surgical group, access was via thoracotomy (7/8) or median sternotomy (1/8) and procedure length was 297 ± 102.9 min. Time for stent placement, via the femoral artery, was 165 ± 79 min. Surgical patients were ventilated for 8.4 ± 7.1 days; stented patients for 2.8 ± 2.8 days. Length of ICU stay in surgical patients was 11.4 ± 9.4 days, and in stented patients was 3.6 ± 3 . One mortality occurred during stenting; there was no intra-operative mortality.

Conclusion: ATAT occurs most commonly in a young male population, predominantly secondary to RTAs. Minimally invasive intervention results in shorter procedure times and avoidance of cardiopulmonary bypass. Furthermore, although confounded by associated injuries, stented patients have shorter lengths of ventilation and ICU stays.

Conflict of interest: None.

Disclosures: None.

16. An audit of paediatric appendectomies in a regional hospital

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161 cases of paediatric appendectomies in children aged 14 and under were identified over a 12 month period. These included both open and laparoscopic appendectomies. 107 charts were obtained and the data was retrospectively compiled into a spreadsheet and analysed under two headings depending on post operative histological diagnosis.

Of the 107 cases identified, 103 had removal of their appendix. 54 were performed laparoscopically and 49 open. The average age was 11.07 years and the average length of stay was 3.93 days. 88% of patients attended theatre in less than 2 days. Two groups were formed depending on the histological diagnosis of the appendix post-operatively, suppurative appendicitis (64%) and non appendicitis (36%). On comparison of these two groups average white cell count was 15.42×10^3 cells/m³ vs 10.49×10^3 cells/m³, the average length of stay was 3.97 days vs 4.03 days and the average number of days administered IV antibiotics was 2.24 versus 1.30 days, respectively. Overall 70% of IV antibiotics administered were either co-amoxiclav alone or co-amoxiclav combined with metronidazole.

There were huge variances in the management of paediatric appendicitis in this regional hospital for this time period. This audit functioned as a start point for standardising paediatric appendectomies.

Conflict of interest: None.

Disclosures: None.

17. The role of CT in mechanical circulatory support imaging

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To study the role of CT and CT Angiography (CTA) in the non-invasive evaluation of mechanical circulatory support (MCS) devices.

A retrospective study was performed from 2005 to 2010 at our institution. The patient notes were reviewed for demographics, diagnosis and implant date. Patients imaged had multislice CT with/without power injection of contrast. All available studies were reloaded and studied in 2D/2D by an experienced radiologist. Imaging features studied were;

- Relationship of tubing to sternum.
- Anastomoses.
- Presence of mural thrombus.
- Signs of infection-mediastinum, lung, pocket, tubing.
- Change of heart size post placement.

12 patients were studied. 10 males, 2 females. Age range 10-56. Diagnoses were dilated cardiomyopathy (7), ischaemic cardiomyopathy (3) and myocarditis (3). 5 Left ventricular assist devices (LVAD), 3 biventricular assist device (BiVAD), 4 Heart Mates. The duration of device implantation was from 9 to 380 days (mean 103 days). 6 went on to transplant. There were 4 strokes (3 with MCS). 2 patients died.

12 patients had CT or CT angiography. There were no complications. All studies were of good quality for interpretation. The tubing and its relation to sternum were well visualized in all patients and did guide surgical planning. Anastomoses were clearly visualized. Changes in the mediastinum, lung parenchyma, pocket and tubing were documented.

CT and CTA provides a method for comprehensive assessment of MCS. Our protocol was reliable and reproducible in MCS assessment. It can reliably guide surgical planning, assess for thrombus formation and help diagnose infection.

Conflict of interest: None.

Disclosures: None.

18. Assessing the impact of techniques of wound closure on vascular surgical site infection rates

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Introduction: Reported rates of Vascular Surgical Site Infection (VSSI) vary from 1–2% in Aortic Surgery, up to 10–20% in lower limb procedures. Given the potentially devastating consequence of secondary infection of a synthetic bypass graft or endostent, it is imperative that attention be paid to preventing VSSI.

Aims: The aim of this study is to assess the influence of Wound Closure Techniques on the incidence of VSSI rates in a Tertiary Vascular Referral Centre. End-Points included VSSI rates, impact of patient-specific factors, and re-intervention rates.

Methods: A retrospective cohort study was undertaken in a tertiary referral centre. Data for all patients was obtained from the prospectively maintained Vascubase dataset.

One cohort ($n = 1437$) was assigned to a specific method of wound closure, a rigorous technique in which pulse lavage is utilized to deliver antibiotic wash to the wound, followed by closure in layers with 3/0 monocryl, with 4/0 monocryl to skin. The wound edges were then sealed with Tissue adhesive (Dermabond). No dressing was applied to the wound.

In the control group, neither pulse-lavage nor dermabond were used, and standard opposite dressing was applied to wound after closure in layers.

Both groups were matched as regards patient-specific factors including Diabetes Mellitus, hypertension, hyperlipidaemia and smoking history.

Results (to date).

Dermabond/pulse lavage group:

Vascular	Procedure	N	VSSI%
Open AAA	78	4	5.13
EVAR	94	1	1.06
Bypass	176	5	2.84
Angioplasty	310	4	1.29
Venous surgery	523	3	0.57
Dialysis access	81	0	0
Carotid endarterectomy	175	0	0
Total	1437	17	1.18

The incidence of infection rates in the control group was less favourable, and was more in keeping with rates previously recorded in the literature. As regards quality of life scoring, Q-TWIST was unsurprisingly reduced in those patients in whom VSSI occurred as compared to uncomplicated cases 6.34 versus 15.89, $p < 0.01$. The most common site of infection was the groin ($p < 0.019$). Ten patients required a second surgical intervention.

Conclusion: VSSI rates depend not only on patient-specific factors but also on methods of wound closure, with a specific strategy using Pulse Lavage and Dermabond giving favourable results compared to controls and VSSI rates previously recorded in the literature.

Conflict of interest: None.

Disclosures: None.

19. Mortality following surgical services reconfiguration in the Mid-West

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Background: Following prolonged consultations, the health service in Ireland is now engaged in a series of service reconfigurations. This involves centralisation of acute surgical services. There have been concerns that the withdrawal of acute surgical services from smaller hospitals will result in excess mortality, due to diagnostic delay and transfers. As yet, there has been no analysis of mortality data.

Methods: The Hospital In-Patient Episode database was interrogated to identify all surgical episodes in the Mid-West Region for the year before and year after surgical service reconfiguration. All surgical specialities (general surgery, vascular surgery, orthopaedics, ophthalmology, otorhinolaryngology, urology, maxillofacial surgery) were included. Poisson mortality rates were calculated and used to determine the effect of reconfiguration on the standardised mortality rate.

Results: In the year preceding reconfiguration, the incidence rate estimate for death was 0.001268 per day (95% CI: 0.001025–0.001552) (94 deaths from 74,105 patient days). Using these data as a baseline, in the year following reconfiguration, 87 deaths would be expected. 88 deaths were observed (SMR 1.01; 95% CI: 0.81–1.25). There was no significant difference in the observed to expected mortality ($p = 0.464$). The analysis was repeated for general surgical

patients requiring emergency surgery. Following reconfiguration, 18 deaths were expected but only 13 were observed (SMR 0.73; 95% CI: 0.39–1.26; $p = 0.16$).

Conclusion: There has been no increase in mortality due to the centralisation of acute surgical services in the Mid-West. Further data are required to determine whether centralisation reduces mortality following emergency general surgery.

Conflict of interest: None.

Disclosures: None.

20. Impact of ring-fenced surgical beds at Mayo General Hospital—a pilot study

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Current health policy in Ireland stipulates a move towards increasing the volumes of day case surgery, same-day elective admissions, and minimising length of stay for patients and the rate of cancellations for elective surgery. It is expected that ring-fencing surgical beds will reduce the impact of emergency medical and surgical admissions on these parameters. The aim of this study was to assess the impact that ring-fenced inpatient surgical beds had on levels of activity and cancellation rates in the department of general surgery over a 6 month period.

During the month of June 2010 43 surgical inpatient beds were ring-fenced and 17 beds were decommissioned. Admission rates and related data were retrieved from HIPE for the periods between January 1st and June 30th 2010, and July 1st and December 31st 2010. Quantitative comparative analysis was carried out for specified parameters of activity over these two time periods. Complexity of all operations carried out in theatre was graded according to an index schedule of procedures.

The table below demonstrates the admission and bed usage for both time periods being studied:

Parameter	January–June 2010	July–December 2010
Total elective admissions	471	450
Total emergency admissions	888	947
Average inpatient length of stay	5.5	4.6
Average bed days used	1,243	1,081

Ring-fenced surgical beds have led to a higher volume of same-day admissions and shorter length of stay, resulting in a more efficient use of hospital resources.

Conflict of interest: The author declares no conflict of interest.

Disclosures: None declared.

21. Early oesophageal cancer: changing treatment trends in an Upper GI (Gastrointestinal) tertiary referral centre over the past decade (2000–2010)

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Background: Barrett’s surveillance has increased detection of early oesophageal malignant lesions (EM): high grade dysplasia (HGD), intramucosal carcinoma (IMC) & submucosal (T1) adenocarcinoma. Endoscopic approaches, including mucosal resection (EMR) and radiofrequency ablation (RFA), are now established in the management armamentarium in addition to traditional operative approaches. Our aim was to profile the experience of a high-volume specialist centre from 2000 to 2010.

Methods: All cases of EM lesions were collected from a prospectively maintained database. Surgical and endoscopic therapies were examined for: complete eradication of EM, treatment complications and disease status at follow-up.

Results: Eighty-one patients were included [median age 65 years (range 29–83); M:F 3.8:1]. Forty-eight patients had surgical resection; six were upgraded to surgery following staging EMRs. Pre-surgical histology was: HGD ($n = 4$), IMC ($n = 25$) and T1 mucosal carcinoma ($n = 19$). Surgical morbidity was 29% with one in-hospital death (2%). Anastomotic stricture requiring dilatation occurred in 8%. All patients were cured of EM.

Twenty-seven patients had EMR ± RFA with curative intent. Pre-treatment EM grades included: HGD ($n = 13$), IMC ($n = 11$) and T1 mucosal carcinoma ($n = 3$). This group’s rate of complete resolution for EM was 100%; 69% had complete eradication of Barrett’s. Six high risk surgical candidates, unsuitable for 1st-line endoscopy with curative intent, had endoscopic salvage treatment for EM lesions. Complications of EMR were a single arterial bleed (2%) requiring a blood transfusion.

Conclusions: A marked increase in early cancers has been observed with improved Barrett’s surveillance. Endoscopic approaches represent a safe alternative to surgery, however, they are not curative in all cases. Close interdisciplinary collaboration between gastroenterology, surgery, and pathology is mandatory in obtaining optimum outcomes.

Conflict of interest: None.

Disclosures: None.