Core Surgical Forum
Friday 27 June 2014
Southern House, Otterbourne

0930 Introduction & Welcome from Miss Sarah Stapley, Training Programme Director

**Session One: Specialities**  **Chair by Miss Karen Nugent**

0940 Local outcomes of Laparoscopic Nephrectomies
Francesca New

0950 Outcomes for ureteroscopy for paediatric stone disease: Evidence from a systematic review
Hiro Ishii

1000 Patient safety and safe working hours for surgical juniors - out-of-hours
Alexandra Aframian

1010 The Southwest Regional Audit of Microvascular Free-Flaps: The Salisbury Experience
Claire Sethu

1020 Safety related orientation
Fadi Hindi

1030 Fluid administration in the peri-operative patient
Georgiou Delisle

1040 Quality of life of patients with recurrent or locally advanced colorectal cancer following surgery.
James Wigley

1050 Coffee Break

**Session Two: Orthopaedics & ENT**  **Chair by Miss Sarah Stapley**

1110 Delayed-immediate breast reconstruction with temporary subcutaneous implants – what is the rate of implant loss and does it impact on adjuvant therapy?
Ann-Louise Lowson
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1120</td>
<td>Management of Adult Distal Radius Fractures: A Local Experience</td>
<td>Rachel Howes</td>
</tr>
<tr>
<td>1130</td>
<td>A Review of Environmental Factors Implicated in Human Developmental Dysplasia of the Hip</td>
<td>Amanda Rhodes</td>
</tr>
<tr>
<td>1140</td>
<td>Introduction of ERP specific pre-printed drug charts for protocol medications in an elective orthopaedic unit.</td>
<td>Hywel Room</td>
</tr>
<tr>
<td>1150</td>
<td>Dual Mobility Total Hip Replacements for Fractured Neck of Femur</td>
<td>Michael Dean</td>
</tr>
<tr>
<td>1200</td>
<td>Peri-Operative Antibiotics for Orthopaedic Trauma Surgery.</td>
<td>Ben Saunders</td>
</tr>
<tr>
<td>1210</td>
<td>MMC in the Larynx - A Systematic Review</td>
<td>Michael George</td>
</tr>
<tr>
<td>1220</td>
<td>Don’t be a clot – an anticoagulant guide for ENT surgeons</td>
<td>Mo Bajalan</td>
</tr>
<tr>
<td>1230</td>
<td>Chronic Rhinosinusitis with Nasal Polyposis: An audit of local compliance with EPOS 2012 Guidelines</td>
<td>Eugene Omakobia</td>
</tr>
<tr>
<td>1240</td>
<td>Primary care management of otitis externa and referral to the ENT emergency clinic</td>
<td>Michael Couzins</td>
</tr>
<tr>
<td>1250</td>
<td>A paired analysis of VoiSS and VHI-10 self rated scores in patients with voice disorders: do VoiSS and VHI measure the same thing?</td>
<td>Charles Archer</td>
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<tr>
<td>1300</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>1400</td>
<td>Angiosomes: The clinical outcomes of diabetic patients following endovascular treatment for Fontaine IV critical limb ischaemia</td>
<td>Elizabeth Kershaw</td>
</tr>
</tbody>
</table>
1420  **Heat Shock Proteins in Management of Breast Cancer**  
Samantha Body

1430  **Breast cancer in the elderly**  
Pam Chaichanavichkij

1440  **Minimising Venous Thromboembolism (VTE) risk for all acute surgical admissions to the Royal Hampshire County Hospital (RHCH)**  
Michael Wanis

1450  **The practical application of NUn scoring in patients with distal oesophageal anastomoses**  
Rahul Bhome

1500  **Examining the role of NFkappaB/ASPP/p63/p53 in the development of Barrett’s Oesophagus**  
Michael White

1510  **A review of oesophago-gastric resections performed at UHS**  
Oliver Harrison

1520  **An Audit of Wound Infection in HPB Surgery at University Hospital Southampton**  
James Hooper

1530  **Clinical audit of the management of pyloric stenosis**  
Matthew Jobson

1540  **Sepsis in General Surgery: A International Audit investigated at a Local Level**  
Max Marsden

1550  **Tea & Cake**

1610  **Miss Karen Nugent, Head of School of Surgery**  
Prizes and closing remarks

1630  **Finish**
Core Surgical Forum

ABSTRACT BOOKLET

Friday 27 June 2014
Local outcomes of Laparoscopic Nephrectomies
Dr Francesca New and Dr Julia Fordham
Dorset County Hospital NHS Foundation Trust

Background

Since 2001 the British Association of Urological Surgeons has been collecting data on laparoscopic nephrectomies. They have set up a national audit to ensure the safe implementation of this technique and compliance with internationally accepted standards; mean theatre time, median hospital stay, complication rates, conversion rate and blood transfusion rate being the outcomes focused on. Following publication of data from previous years, it was concluded that the evidence supported fewer specialist centers performing more procedures in order to maximise outcomes.

Methods

We conducted a retrospective audit between Jan 2013 and Dec 2013 for all nephrectomy cases during this period. No cases were excluded. We then compared this data to the national averages from the UK July 2007- June 2008.

Results

n=13 (10 laparoscopic, 3 open). Mean theatre time 163 minutes (national average 150 minutes), median hospital stay 5 days (4 days), conversion rates 0% (4.8%), complications 7% (17.4%), 0% blood transfusions (5.5%).
(Data collection ongoing)

Conclusion

Initial data suggest that on safety outcomes (complications, conversion rates and blood transfusion rates) local outcomes compare favourably to the national averages. On efficiency outcomes, local outcomes lag slightly behind the national averages, but are broadly comparable. We therefore query whether centralising this procedure would result in better outcomes in all cases.
Outcomes for ureteroscopy for paediatric stone disease: Evidence from a systematic review
H Ishii¹, S Griffin², BK Somani¹

(1) Department of Urology, University Hospital Southampton (2) Department of Paediatric Surgery, University Hospital Southampton

Introduction & Objectives

Ureteroscopy for treatment of paediatric stone disease has risen in recent years. A review of the literature was performed to investigate the outcomes of ureteroscopy for stone disease in the paediatric population.

Material & Methods

A systematic review of the literature was performed for relevant studies between January 1990 and May 2013. All English language articles reporting on a minimum of 50 patients ≤18 years treated with ureteroscopy for stone disease were included.

Results

14 studies (1718 procedures) were identified with a mean age of 7.8 years (0.25-18). The mean stone burden was 9.8mm (1-30) with a stone free rate (SFR) of 87.5% (58-100) after initial therapeutic ureteroscopy. The majority of these stones were located in the ureter (n=1427, 83.4%). There were 180 (10.5%) Clavien I-III complications and 38 cases (2.2%) where there was a failure to complete the initial ureteroscopic procedure requiring an alternative procedure.

<table>
<thead>
<tr>
<th>Nature of complication</th>
<th>Number of complications (%)</th>
<th>Clavien criteria grade</th>
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<tbody>
<tr>
<td>Intra-operative bleeding/false passage/ureteral perforation/tear/laceration/submucosal wire</td>
<td>48 (2.8)</td>
<td>III</td>
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<tr>
<td>Haematuria</td>
<td>39 (2.3)</td>
<td>I</td>
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<tr>
<td>UTI/pyelonephritis</td>
<td>35 (2.0)</td>
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To assess the impact of age on failure and complications rates, the studies were subcategorised into those with children below and above a mean age of 6 years. There were four (341 procedures) and 10 studies (1337 procedures), respectively. A higher failure (4.4% versus 1.7%) and complication rate (24% versus 7.1%) was seen in those with a mean age of 6 years or below.

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<th>Studies with mean age of 6 years or below</th>
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<tr>
<td>Failures (n)</td>
<td>15/341 (4.4%)</td>
<td>23/1323 (1.7%)</td>
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<tr>
<td>Complications (n)</td>
<td>82/341 (24%)</td>
<td>98/1323 (7.1%)</td>
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Table 1: Nature of complications, their frequency and Clavien grade

Table 2: Summary of URS failure and complication rates between the sub-groups (6 years or below and above)
Conclusions

Ureteroscopy for paediatric stone disease is safe with satisfactory SFRs. However, evidence suggests higher failure and complication rates in children less than 6 years of age. To further improve outcomes, these procedures should be conducted in high volume centres and performed by experienced teams.
Patient safety and safe working hours for surgical juniors - out-of-hours
(D7 SHO shift at Queen Alexandra Hospital, Portsmouth)
January 2014
Alexandra Aframian

Background: In 2009 the European Working Time Directive (EWTD) was implemented to include junior doctors; its purpose is to “protect workers’ health and safety”. In the framework of out-of-hours services operated by surgical junior doctors; is the sentiment and principle on which EWTD was built, upheld in its implementation? Does this current implementation augment patient safety? What factors affecting patient safety are problematic?

Methods: Retrospective questionnaire survey; all doctors on a named shift pattern were emailed an online survey with ten questions including both multiple choice and open space questions.

Results: 9 of the 12 doctors completed the survey. 56% felt the shift in question was EWTD compliant less than half the time, 56% never took natural breaks and 67% had 11 hours of continuous rest between shifts less than half the time. 100% of doctors surveyed felt the volume of work was unmanageable and 22% lacked the knowledge to manage the workload. This meant that at times it was not possible to complete important tasks ‘in a timely manner’. 78% agreed handovers were unstructured and 67% felt they were inconsistent.

Conclusions: Out-of-hours service provisions are currently lacking should be increased/restructured in order to manage workload and gain EWTD compliance. A formalised/structured, mandatory handover process should be implemented to ensure patient safety standards are maintained. Further teaching/induction should be provided in order to improve doctors understanding of local protocols, appropriate escalation procedures and the acute management of common surgical problems. The survey should be repeated post-implementation of the recommendations.
The Southwest Regional Audit of Microvascular Free-Flaps: The Salisbury Experience

C Sethu, R Exton, A Crick
Salisbury District Hospital

Introduction

Free tissue reconstruction is an integral component of plastic surgery with a role in oncological, trauma, scar and infection reconstructions. This study was part of the Southwest Regional Plastic Surgery audit 2014 and was based on a study by R Khouri (1998) reporting a flap failure rate of 4.1%. This has been the international benchmark against which flap outcome has been assessed.

Methods

A prospective audit was conducted between 14/10/2013-14/04/2014. Data was extracted using a standard proforma and analysed.

Results

96 free flaps in 80 patients were performed at Salisbury in the 6-month period (41 females and 39 males). The average age was 50.8 years (19-87 years).
The most frequently performed free flaps were the anterolateral thigh flap (39) and the deep inferior epigastric artery perforator flap (38). The commonest recipient site were breast and lower limb.
There were 4 partial flap necrosis, 1 donor site dehiscence and 2 complete flap failures.

Conclusion

The complete flap failure rate at Salisbury was 2.08% which is lower than quoted rates and the international benchmark. All free flaps are monitored on a dedicated ward and therefore flap problems are identified rapidly.
A limitation to the study is the possibility of missed cases particularly cases in the trauma centre, reporting of which needs to be improved upon.
This study highlights the role of a specialist team trained in free flap care as well as a consistently low free flap failure rate at Salisbury.
Safety related orientation

Fadi Hindi
Queen Alexandra Hospital, Portsmouth

Information was devised from Queen Alexandra Hospital Portsmouth, trauma and orthopaedic wards. Junior doctors, ranging from foundation - Core Trainees were targeted. In this hospital and most of the UK hospitals the equipment for medical emergencies ranges in location and pro forma. Junior doctors are unaware of the location of the medications/equipment are kept, causing delay treatment.

Method

After filling a questionnaire, the efficacy of junior doctors’ response in emergencies was reviewed. This confirmed that not knowing the location of certain equipment/medications was a limiting factor with regard to efficient treatment.

A PowerPoint presentation was sent out to junior doctors with details of orientation, A poster was placed on all the individual wards; to emphasis they should orientate themselves around the ward to locate certain items. A brief 5 minute talk on the ward with every individual was also carried out.

Result

A week after the interventions were put in place, the same10 questions were asked to compare if there was any improvement. The data was placed into pie charts to compare the percentages. Results after the intervention showed an improvement so great that 7 out of the 10 questions asked were answered to the effect of 100% with the remaining 3 at 91%.

Conclusion

With the results in hand our project has the potential to improve patient outcome in acute medical scenarios by hastening the time for efficient treatment. The main problem was doctors had very limited time so only a 5 minute brief was designed.
**Fluid administration in the peri-operative patient**

*Review of current practice between surgical specialties in a major trauma centre*

Morbi A\(^1\)\(^2\), Georgiou Delisle T\(^2\), Godfrey AD\(^2,3\), Sansome A\(^4\), Nordon IM\(^2\).

\(^1\)University of Southampton and University Hospital Southampton NHS Foundation Trust

\(^2\)Department of Vascular Surgery, University Hospital Southampton NHS Foundation Trust, UK

\(^3\)Imperial Cardiovascular Patient Safety Group, Imperial College, London, UK.

\(^4\)Department of Anaesthetics, University Hospital Southampton NHS Foundation Trust, UK

Introduction

Media attention has identified sub-optimal fluid management of hospital patients. Peri-operative fluid management in elective major surgery is of key importance in ensuring excellent outcomes. With juniors managing complex sub-specialty patients, we review local practice, highlighting the importance of understanding fluid requirements.

Materials and Methods

Retrospective analysis of 10 major elective cases in each sub-specialty: oesophago-gastric (OG), hepatobiliary (HPB), colorectal and vascular surgery. Cases utilising level 2/3 care in intensive care / surgical high dependency used. Electronic data and patient notes containing operation notes, anaesthetic charts and fluid-balance charts cross-referenced. Data collated and analysed (Microsoft Excel).

Results

Operative times were comparable with no significant difference in estimated blood loss between sub-specialties. There was a greater decrease in post-operative haemoglobin in OG and HPB (26g/L vs 10g/L colorectal, 12g/L vascular). Renal function was maintained across sub-specialties.

Intra-operative fluid regime differed between sub-specialties with HPB having greater intra-operative colloid requirements (27.3% vs 3.8-6.2%).

Similar trends were seen in the proportion of crystalloids used between sub-specialties post-operatively but greater volumes were used in OG and HPB. Post-operative fluid balances trend towards neutral in colorectal and vascular, with more positive balances seen in OG and HPB (4-5 litres).
Conclusions

Previous consensus in enhanced recovery protocols recommends goal-directed fluid therapy, avoiding intra-operative crystalloid excess and post-operative intravenous fluids, where possible. Our results indicate variability against consensus between sub-specialties, with colorectal and vascular having more restrictive fluid management than OG and HPB. There is a need for clear local sub-specialty guidelines to optimise peri-operative fluid management.
Management of Adult Distal Radius Fractures: A Local Experience
Dr Rachel Howes, CT1 Core Surgical Training
Miss Sarah Stapley, Consultant Trauma and Orthopaedic Surgeon

Queen Alexandra Hospital, Southwick Hill Road, Cosham, Hants, PO6 3LY

Background

Distal radius fractures are a common clinical problem, but there is a lack of robust evidence to guide their management. We look at the local experience of distal radius fracture management, with a view to exploring clinical outcomes within the treatment category groups in the future.

Method

Theatre records were interrogated to produce a list of all distal radius procedures performed in 2012. Paediatric records were excluded and removed. The remaining fractures were classified using AO classification performed by a trainee surgeon, and a sample verified by a consultant orthopaedic surgeon. The records were then categorised by management strategy into MUA, K-wiring, or plating.

Results

A large number of fractures managed in QAH were complex injuries. The majority of procedures performed were Open reduction and internal fixation with distal radius plates. Comparatively few were definitively managed using MUA or K wiring.

Discussion

Due to the complexity of the injuries seen at QAH, many consultant lead procedures are performed. This may have implications on the number of simple procedures appropriate for junior registrars and core trainees to perform.
Review of Environmental Factors Implicated in Human Developmental Dysplasia of the Hip
A Rhodes, NMP Clarke
Department of Trauma & Orthopaedic Surgery
University Hospital Southampton NHS Foundation Trust

Background

Developmental dysplasia of the hip (DDH) is common, and describes a spectrum of anatomical abnormalities of the hip in which the femoral head displaces from the acetabulum. Neither the prenatal and postnatal factors which predispose to hip instability, nor the determinants of its resolution or persistence, are well characterised.

Identified risk factors for DDH include a family history, first born, breech presentation, female gender, high birth weight and oligohydramnios. Further to genetic factors, a number of nutritional, hormonal and mechanical influences on ligament laxity have been hypothesised.

Method

A comprehensive search was conducted using NICE Healthcare Databases Advanced Search and Google Scholar engines. Evidence from randomised controlled trials, systematic reviews and expert review articles published in medical and veterinary literature was considered.

Results

The relationship between a number of hormones and biochemical markers of nutritional status and development of DDH has been repeatedly hypothesised upon in the last forty-five years. Those most frequently cited include calcium, vitamins C and D, and relaxin hormone. The evidence for these potential risk factors is provided mainly by canine studies, with a paucity of consistent or strong evidence in humans.

Clinical Relevance

We aim to establish a Level I prospective cohort study to recruit mothers at risk (positive family history), babies with proven DDH, babies at risk of DDH (positive family history, breech, high birthweight, oligohydramnios), those with failed conservative treatment, and those presenting late for surgical management. By systematic collection of potential hormonal and biochemical markers, this study aims to enable hypothesis generation for further focussed investigation.
Introduction of ERP specific pre-printed drug charts for protocol medications in an elective orthopaedic unit.

Room H.J.

Hinchingbrooke Hospital

Introduction

A protocol of 15 medications for analgesia, antibiotics and adjuncts was well established in our orthopaedic unit for elective surgery on the enhanced recovery pathway (ERP). Within the protocol there was some minimal variation in dosage and medication based on age, renal function and allergies. However, all protocol medications were prescribed on a standard drug chart. We wondered whether a pre-printed drug chart specific for the orthopaedic ERP would reduce the time taken to prescribe medication. Working with the pharmacy department, a new pre-printed drug chart was introduced and subsequently validated with a business case.

Methods

The times taken to prescribe protocol medications using either the standard drug chart or the new pre-printed drug chart were recorded for 24 patients; 12 for each drug chart. The mean age and the proportion of patients with renal dysfunction and allergies was not significantly different between the two groups. Cost and time savings were then projected based on an F2 annual salary of £41,000, 6 elective patients per day, 5 operating days per week and 51 operating weeks per year.

Results

The mean time to prescribe protocol medications on a standard chart was 6.1 minutes, compared to 2 minutes for the pre-printed chart. This difference of 4 minutes per chart equated to a time saving of 25 minutes per day, equating to 104 hrs/year and a cost saving of £2,220/yr, equivalent to 5% of the F2 salary.

Conclusions

Pre-printed drug charts for ERP protocol medication has the potential to save significant time for junior doctors, releasing time to care and helping meet ever present EWTD pressures.
Dual Mobility Total Hip Replacements for Fractured Neck of Femur
Dean M, Round J, Ahluwalia R, Fletcher J, Higgs D, Dunlop D, Latham J

University Hospital Southampton NHS Foundation Trust

Background

61508 patients sustained a fractured neck of femur in 2012-13. For patients with displaced intracapsular fractures NICE recommend treatment with a total hip replacement (THR) if the following criteria are met: previously walked independently, no cognitive impairment and fit for anaesthetic. Post operatively these patients have reduced pain and improved function compared to those undergoing traditional hemiarthroplasty, however higher rates of infection and dislocation (up to 17%) have been reported. Dual Mobility THR have been used to reduce the risk of dislocation but concerns have been raised regarding survivorship. Our aim was to assess this and identify any complications.

Methods

Patients who underwent primary THR for fractured neck of femur over a 3-year period were identified. All were treated with the SERF implant (Orthodynamics and Summit Medical UK). Notes and radiographs were scrutinised for evidence of dislocations, infection, periprosthetic fracture and revisions.

Results

248 hips were implanted into 247 patients. 8 patients were excluded as they were followed up elsewhere. There were 20 deaths, 12 of which were in the first year. The complications identified were: 2 dislocations (neither requiring revision), 3 periprosthetic fractures, 1 revision for aseptic loosening and 5 infections (4 requiring washout).

Conclusions

In our series the dislocation rate for dual mobility THR was 0.8%, significantly lower than that previously reported. Overall the reoperation rate was 4%. We suggest that the dual mobility THR is an effective prosthesis for the treatment of fracture neck of femur.
**Peri-Operative Antibiotics for Orthopaedic Trauma Surgery**

Ben Saunders, Michael George and Miss C Lewis (Orthopedic Consultant, QAH, PHT)

Queen Alexandra Hospital, Portsmouth

**Background**

A potentially avoidable death secondary to MRSA bacteraemia was highlighted at the Orthopaedic morbidity and mortality meeting. Although MRSA negative on admission, the patient had an unchecked, recently positive, MRSA wound culture.

**Aim**

- Improve orthopaedic peri-operative antibiotic prescribing to prevent unnecessary infections and improve patient safety.
- Highlight high risk MRSA patients at admission.
- Evaluate clarity and appropriateness of trust peri-operative antibiotic guidelines.

**Method**

Trust antibiotic guidelines and MRSA clinical policy used as standards. Patient notes retrospectively reviewed for documentation of previous MRSA status, induction and post-operative antibiotics. Clarification of definition of ‘MRSA at-risk’ patients with infection control team.

**Intervention**

Close liaison with Microbiologists regarding new orthopaedic antibiotic guideline and specific recommendations for MRSA ‘at-risk’ patients.

Trauma handover tool adapted to highlight MRSA status.

Education of orthopaedic department regarding interventions.

**Results**

- 40% of hip fracture patients received correct peri-operative antibiotics.
- Consistency of antibiotic choice and dosage poor, particularly Teicoplanin
- 0% documentation of previous MRSA status.

**Post-intervention**

- New antibiotic guideline ratified
- 86% of all trauma admissions had MRSA status recorded.
- Awaiting complete data collection for antibiotics in hip fracture patients but initial results encouraging.
Conclusion
Increasing awareness of MRSA status & clarifying antibiotic guidance has improved standard of care for trauma patients. To effect appropriate & long lasting change a collaborative multidisciplinary team effort is required.
MMC in the Larynx - A Systematic Review
M. George, P. Karkos
University of Edinburgh

This research project was undertaken as part of the University of Edinburgh MSc in Surgical Sciences

Aims and Background

Mitomycin-C (MMC) is an antineoplastic-agent that inhibits DNA and RNA synthesis and is commonly used as a chemotherapeutic agent. Due to its anti-fibrotic effects it can also be used topically to prevent post-operative scarring and stenosis. This review aims to assess the efficacy of mitomycin-C for the prevention of post-operative laryngeal stenosis.

Methods

A systematic review was performed. The inclusion criteria included original articles, review articles, case series and adult and paediatric populations. Studies were also included that used mitomycin-C in combination with other treatments or ‘treatment algorithms’. Exclusion criteria included case reports, animal and in-vitro studies.

Results

Of eighty studies identified, sixteen met our inclusion Criteria. These studies included two randomised controlled trials, three prospective studies and eleven retrospective studies. Nine studies supported the use of MMC, three did not support its use and the remaining four studies do not make any definitive conclusions.

Conclusions

Overall the results support the use of MMC as an effective strategy in the prevention of post-operative laryngotracheal stenosis. There is level Ib evidence that suggests repeated applications of MMC can delay re-stenosis rates by several years which may equate to substantial Cost savings and an improvement in patients’ quality of life.
Don’t be a clot – an anticoagulant guide for ENT surgeons
M. Bajalan, T. Biggs,
University Hospital Southampton NHS Foundation Trust

Introduction:
Anticoagulant medications are commonly used in the management of numerous cardiovascular diseases. Furthermore, many newer anticoagulant agents are now licensed for use in the UK. Surgeons will encounter patients’ on anticoagulants; therefore, a thorough knowledge of these will be essential for managing acute and pre-operative cases.

Objective
The aim of this study was two-fold; 1. Ascertain ENT clinicians’ current knowledge surrounding new (e.g. apixaban, rivaroxaban) and old (e.g. aspirin and warfarin) anticoagulant medications, and 2. Provide an educational overview of anticoagulants for use by surgeons.

Method
A questionnaire survey was distributed across the Wessex region (November 2013) to ascertain levels of knowledge and confidence in managing patients taking various anticoagulants. In total 50 questionnaires were completed (41 trainees and 9 consultants), following which an educational article on managing anticoagulants for surgeons was produced.

Results
Results highlighted poor clinical and pharmacokinetic knowledge of newly licensed anticoagulant medications. Confidence in managing older anticoagulants was better than newer forms, across all grades of doctors, particularly at the senior level. Many clinicians suspected that the newer anticoagulant medications needed 5-7 days abstinence for reversal prior to surgery. No-one identified that <5 days would be sufficient. All doctors questioned would like to see an educational tool regarding anticoagulants.

Conclusion
Knowledge of newly licensed anticoagulation medications is poor. This study has produced an educational resource for the management of anticoagulant agents. A thorough knowledge of this is essential for the acute management of bleeding patients, and in pre-operative surgical planning.
Chronic Rhinosinusitis with Nasal Polyposis: An audit of local compliance with EPOS 2012 Guidelines

Eugene Omakobia
Queen Alexandra Hospital, Portsmouth

A retrospective audit was performed on patients with chronic rhinosinusitis with nasal polyposis (CRSwNP) undergoing endoscopic sinus surgery in the ENT department of the Queen Alexandra Hospital, Portsmouth. Patient management was examined and compared to the recommended guidelines of the European position paper on rhinosinusitis and nasal polyps (EPOS 2012).

Consecutive patients between January 2011 and July 2012 undergoing endoscopic nasal surgery for CRSwNP were included. Patient data including age, gender, preoperative symptomatology and endoscopic findings, initial medical management, use of oral steroids, preoperative oral steroids, computerised tomography imaging and polyp histology were recorded.

All patients received intranasal steroids as part of their initial management, though the actual steroid constituent used, mode of administration and duration varied. Patients whose treatment was escalated to oral steroids amounted to 72% of patients (in the remaining 28% of cases, oral steroids were not given due to contraindications, recurrent disease, patients’ personal wishes or in some cases, no reason was documented). All patients underwent CT scan imaging prior to surgical intervention. 34% of patients were given preoperative oral steroids.

Our results reflected reasonably tight adherence to the EPOS guidelines. However, there was much variance in the clinicians’ assessment of disease severity and also in initial management in terms of intranasal steroid used, mode of delivery and duration of treatment. We have used the results of this audit to compile a hospital protocol defining clinical assessment of CRS as well as specifying initial medical management, indications for oral steroids in the escalation of management and also for preoperative use.
Primary care management of otitis externa and referral to the ENT emergency clinic

Michael Couzins, CT1 surgical trainee,
Salisbury District Hospital

Background

Acute otitis externa is a common presentation in general practice. The vast majority of cases can be managed with topical antibiotic drops however, some cases require referral to the ENT emergency clinic.

Objectives

To investigate how many referrals of otitis externa to the ENT emergency clinic receive an appropriate initial treatment and whether educating GPs can improve patients' management in the primary care setting.

Methods

Patients attending the ENT emergency clinic diagnosed with acute otitis externa were included in the audit. Patient age, symptom duration and the management instituted in primary care was recorded. An otitis externa management protocol was developed and sent to all general practitioners in the region before re-audit was performed.

Results

Forty patients attended the ENT emergency clinic prior to protocol implementation with acute otitis externa with a further forty patients post-protocol (mean age 46, range 3-88). Average days from onset of symptoms to presentation was 18 (range 2-77). Comparing pre- and post-protocol patient groups, 14(35%) vs 26(65%) received only topical antibiotics, 16(40%) vs 10(25%) both topical and oral antibiotics, 8(20%) vs 2(5%) only oral antibiotics and 2(5%) vs 2(5%) no treatment. Only 3(7.5%) vs 4(10%) cases were assessed as requiring oral antibiotics in addition to topical treatment.

Conclusion

The implementation of an acute otitis externa protocol in primary care appears to reduce the presentation of patients to the emergency clinic who have received inappropriate initial management with oral antibiotics.
A paired analysis of VoiSS and VHI-10 self rated scores in patients with voice disorders: do VoiSS and VHI measure the same thing?
Mr Charles Archer¹, Mr Arthur Henderson A¹, Mr Tahwinder Upile¹, Mrs Janet Tucker², Mr Nimesh Patel¹

¹ Department of ENT, University Hospitals Southampton
² Department of Speech and Language Therapy, University Hospitals Southampton

Background
Two commonly used self-reported measures of vocal function are the 30-item Voice Symptom Scale (VoiSS) and the abbreviated 10-item Voice Handicap Index 10 (VHI-10). Each has its advantages, the latter being short and widely used, the former having undergone a robust development and validation process. This study aimed to assess correlation between VoiSS and VHI-10 scores in patients with voice disorders to evaluate whether the two tools measure the same consequences of vocal illness.

Method
Both VoiSS and VHI-10 questionnaires were administered to all patients attending Speech & Language Therapy outpatients at Southampton University Hospital (July 2010 - August 2013). Correlative statistics were performed on retrospectively collected data to compare both patient and diagnostic category scores.

Results
122 patient records contained both completed questionnaires. Mean age was 52; 50 patients had a pathological and 72 a functional diagnosis. There was very strong correlation between VoiSS and VHI-10 (r=0.869) for all patients, and within both pathological (r=0.889) and functional (r=0.862) diagnostic groups. Subscale analysis showed good correlation in both functional (r=0.789) and emotional sections (r=0.770), but the physical section of the questionnaires was less well correlated (r=0.279).

Discussion
VHI-10 is a quick assessment of vocal function taking less time to complete than VoiSS. These results show it to be no less valid than the full VoiSS. Administered alone it may reduce costs and save time for both patients and staff, without reducing the effective assessment of both functional and pathological vocal dysfunction.
Angiosomes: The clinical outcomes of diabetic patients following endovascular treatment for Fontaine IV critical limb ischaemia
Miss AE Sharrock, Mr T Barker, Dr E Kershaw, Dr C Watts

Background

This retrospective study was performed to challenge the angiosome model and add information to the few published studies by challenging the hypothesis that direct revascularisation (DR) of peripheral arterial disease (PAD) has superior outcomes in terms of wound healing and amputations when compared to indirect revascularisation (IR) of pedal arteries in the presence of Fontaine IV or Rutherford 5/6 skin changes in diabetic patients.

Methods

A retrospective single-centre analysis was undertaken to assess outcomes of diabetic patients with PAD and severe ulceration when stratified by DR and IR groups. All angioplasties were performed using a standardised technique by one of two operators. Healing, amputation and mortality data was recorded up to 12 months, and up to 36 months where available.

Results

60 patients were included. No differences were identified between DR and IR mean time to healing (200.0 days and 181.5 days respectively, Wilcoxon rank sum p= 0.645), mortality (two tailed Fisher’s exact test p=0.713) or amputations between the DR and IR groups.

Conclusions

This study adds to the few published studies which assess outcomes by targeted revascularisation. In the absence of positive findings in this study and convincing findings in the published literature the authors recommend maximising blood flow through both DR and IR.
Delayed-immediate breast reconstruction with temporary subcutaneous implants – what is the rate of implant loss and does it impact on adjuvant therapy?
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Introduction

Delayed-immediate breast reconstruction (DIBR) describes the technique of inserting a temporary subcutaneous implant at the time of mastectomy, allowing preservation of the skin envelope prior to adjuvant therapies. A minimum of 6 months after radiotherapy this is completed with a definitive reconstruction. It is an option available to patients the MDT deems likely to need adjuvant radiotherapy and can achieve some of the cosmetic benefit of immediate reconstruction. The aim of this study was to assess implant loss rates and potential delays to adjuvant therapies.

Methods

Theatre records were interrogated to identify patients undergoing mastectomy and DIBR between 1 November 2008 and 31st October 2013. Electronic and paper patient records provided information regarding complications and timing of adjuvant therapies.

Results

31 patients underwent 37 DIBRs during the specified period. 7 implants were removed unplanned from 6 patients. 4 implants were removed prior to radiotherapy in 3 patients due to infection, giving an implant loss rate due to infection of 10.8% (4/37). 3 implants were removed for pain/discomfort in 3 patients, 1 of these following radiotherapy. 5 patients had a documented delay in adjuvant treatment (chemotherapy/radiotherapy).

Conclusions

Delayed-immediate reconstruction with subcutaneous implants provides a satisfactory temporising approach for patients deemed likely to be recommended adjuvant radiotherapy with a loss rate secondary to infection of 10.8%. 16.1% had a documented delay in adjuvant treatment due to implant removal. Patient selection remains key to a successful outcome.
Heat Shock Proteins in Management of Breast Cancer

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Introduction

Heat Shock Proteins (HSPs) are groups of anti-apoptotic, molecular chaperones present in all cells. They stabilise cellular proteins under conditions of cellular stress, such as hyperthermia and exposure to cytotoxic chemicals. Over expression of HSPs is seen in cancer cells and are implicated in tumour cell proliferation, death and recognition by the immune system.

This research examined the role of HSPs in management of breast cancer. The cellular location of these proteins was analysed to determine if a relationship exists between HSP expression and breast cancer and location of HSPs manipulated with membrane fluidising agents to determine the synergistic effect with chemotherapy drugs and heat shock.

Methods

100 subjects undergoing breast biopsy sampling were consented for removal of blood and breast tissue. Serum and core biopsy samples were analysed for protein levels of Hsp70 by ELISA. Operative samples were used in experiments treated with chemotherapy agents and heat shock to determine whether sensitivity to chemotherapeutic agents can be increased.

Results

Hsp70 protein expression was significantly higher in malignant breast tissue when compared to the benign group (p< 0.008). HSP localisation was shown to be affected by membrane fluidising agents and this manipulation of HSP resulted in an increased sensitivity of breast cancer cells to two different chemotherapeutic agents.

Conclusion

Studies have shown the over expression of HSPs in cancer and associated their presence with chemoresistance. This study indicated that if the HSPs can be moved to the cell surface, the cytotoxic agent may work more effectively and overcome chemoresistance.
Breast cancer in the elderly
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Background

There is little consensus on the optimal breast cancer care in the elderly. The aim of this study is to understand the presentation of breast cancer, treatment patterns, and outcomes of patients over the age of 80.

Method

A retrospective single centre case series was performed on patients aged 80 and over at the time of diagnosis of breast cancer between 2008 and 2014. Details on patient’s demographics, co-morbidities, and breast cancer management were extracted from patient records. Statistical significance was p<0.05.

Results

156 patients were identified; the median age was 86.6 years (range 80 – 107 years). Invasive ductal carcinoma was the commonest cancer (67.9%). 9.6% of patients presented with T4 fungating lesions and 11.9% with distant metastasis.

Over half of the patients received surgical treatment (55.1%), the majority of which were with curative intent (96.4%). The groups were comparable in co-morbidities aside from age and dementia (p<0.05). 11 patients had surgery under local anaesthetic, and there were no intra-operative complications. The median length of hospital stay was 1 day.

There was a significant difference in overall survival between the conservative against surgical treatment groups,(29 +/- 4.1 vs. 40.0 +/- 6.1 months, respectively, p = 0.004).

Conclusion

Surgical treatment of breast cancer in patients over the age of 80 may confer a survival benefit. However, this is dependent on patient selection, their choice, and their co-morbidities.
Minimising Venous Thromboembolism (VTE) risk for all acute surgical admissions to the Royal Hampshire County Hospital (RHCH)
Meera Thayalan, Zoe Lin, Michael Wanis, Mr Wakefield
CT1 RHCH

Introduction

Hospital-acquired VTE accounts for approximately 25,000 preventable deaths per year, in the UK. As a result, in 2010, VTE assessments were made compulsory by the Department of Health. These assessments should take place at the time of admission, at 24 hours following admission and whenever the clinical situation changes. During our time at the RHCH we have observed inconsistencies regarding VTE assessments and management.

Aim: To analyse current standard of practice locally in order to assess VTE risk

Method

Data was collected retrospectively from all patients admitted via the acute general and orthopaedic surgical take over a one week period using a proforma based on NICE recommendations. 39 patients were identified and included.

Results:
- On admission only 38% had been risk assessed
- VTE prophylaxis was documented 44% of the time on admission clerking.
- VTE prophylaxis at senior review (SpR or Consultant) documented 13% of the time as part of the management plan.
- At 24 hours 0% have been re-assessed
- Of the 39 patients only 64% had TEDs and/or Enoxaparin prescribed within 24h

Recommendations:
- Encourage use of VTE assessment tool, which forms part of the surgical admission clerking proforma, in the form of ward posters.
- Educate junior doctors on the importance of VTE assessments, especially new FY1s, at induction and the start of surgical rotations.
- Add new VTE column to the take list
- Re-audit every 6 months.
The practical application of NU\textsuperscript{n} scoring in patients with distal oesophageal anastomoses
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Background

Markers of the systemic inflammatory response: C-reactive protein, white blood cell count and albumin are independently associated with major complication following distal oesophageal anastomoses. The NU\textsuperscript{n} score combines these parameters and when calculated on post-operative day (PoD) four, a score greater than 10 has been shown to predict major complication with a sensitivity of 95\% and specificity of 49\%.

Method

Consecutive patients who had distal oesophageal anastomoses between 1\textsuperscript{st} September 2012 and 31\textsuperscript{st} August 2013 at Southampton General Hospital were included (n=41; 36 male; median age 66 years). The following parameters were recorded: NU\textsuperscript{n} score on PoD 4, major complications (Clavien-Dindo score >2); length of stay (LOS) and 30-day mortality.

Results

There were 40 two-stage oesophagectomies and 1 extended gastrectomy. The major complication rate was 12\% and 30-day mortality 5\%. Median LOS was 9 days (6-112 days). All major complications recorded NU\textsuperscript{n} scores greater than 10. This study demonstrates a sensitivity of 100\% and specificity of 61\%, with a positive predictive value of 26\% and negative predictive value of 100\%. LOS correlated with NU\textsuperscript{n} score (r=0.318; p=0.048).

Conclusion

A patient with a NU\textsuperscript{n} score less than 10 on PoD 4 is extremely unlikely to develop a major complication. Although our cohort was small, all major complications were associated with NU\textsuperscript{n} score greater than 10. This contradicts a recent failure by another oesophagogastric centre to validate the NU\textsuperscript{n} score. We continue to suggest markers of the systemic inflammatory response are useful in predicting major postoperative complications after oesophagogastricectomy and welcome external validation.
Examining the role of NFκB/ASPP/p63/p53 in the development of Barrett’s Oesophagus
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Background

The incidence of oesophageal adenocarcinoma (OAC) has increased 7 fold in the last 30 years. The main risk factor is chronic reflux disease. Inflammation induced by chronic reflux leads to Barrett’s oesophagus (BO), a premalignant lesion of metaplastic epithelium. There is a lifetime risk of 3-5% conversion from BO to OAC. TP53 is mutated in many gastrointestinal (GI) cancers. Despite this mutation occurring late in colorectal cancer, recent data has suggested that it occurs early in BO development.

Results/ Discussion

On examining the upper GI tracts of transgenic mice we have found that p53R175H mice develop goblet cells and intestinal metaplasia at the squamo-columnar junctions of their upper GI tracts. Another tumour suppressor TP63 drives squamous cell differentiation in the basal cells of squamous epithelium. TP63 knockout mice develop a similar BO like phenotype but die shortly after birth. TP53 and TP63 are known to regulate each other directly and indirectly via ASPP proteins (ASPP1, ASPP2 and iASPP) and are regulated by inflammation through NFκB.

Further Work

Using Cre-recombinase technology I will refine this mouse model to more closely mimic human disease. I will examine the effect of mutations and knockouts of these genes in an in vitro model of epithelial development. Then utilise novel single cell sequencing technology to lineage trace primary cells from biopsies of human Barrett’s in order to find their cell of origin. Single cell sequencing will also be used to understand the way in which TP53 mutations act as a driver mutations unusually early in BO.
A review of oesophago-gastric resections performed at UHS
Oliver Harrison
University Hospital Southampton NHS Foundation Trust

Background

This was an annual review of clinical practice for the gastric and oesophageal cancer resections undertaken at University Hospital Southampton (UHS) in 2014. The objective was to compare complications to the national oesophago-gastric cancer audit 2013 database and suggest improvements to practice based on analysis on an individual case basis.

Methods

All patients undergoing gastric or oesophageal resections between 1st January 2013 – 31st December 2013 were identified. This time period was selected based on the annual review date for the cancer work at UHS.

Results

A total of 43 oesophagectomies and 19 gastrectomies were performed in the time period. Overall Median Age = 65 (National Overall Median Age = 73.5). Overall mortality, complication rates, length of stay and resection margin status were superior to the national data.

Conclusions

The audit demonstrates better than average practice in our institution compared with national practice. There was a significant reduction in the number of gastric resections compared with 2012. Length of stay was significantly shorter than in 2012 – approx. 4 days less for both gastrectomy and oesophagectomy. Review of complications in the patient cohort suggested that it may be beneficial for surgery be postponed by up to 12 weeks post-radiotherapy and we intend to investigate the feasibility of pre-op ECHO on all patients who have undergone radiotherapy.
An Audit of Wound Infection in HPB Surgery at University Hospital Southampton

Mr James Hooper (CT2 Surgery, UHS), Dr. Bahareh Gholipour (FY1, UHS), Mr Hassan Elberm (Senior Fellow, UHS), Mr Arjun Takhar (Consultant Surgeon, UHS)

National Institute for Clinical Excellence (NICE) guidance is in place to optimise the prevention and treatment of surgical site infection. At least 5% of patients undergoing surgery will develop a surgical site infection.

A list of operations undertaken by all HPB Surgeons at University Hospital Southampton between January 1st 2014 and March 31st 2014 was generated. Electronic discharge summaries and clinic letters were scrutinised to determine the incidence of wound infection before discharge, at the time of the first follow-up clinic appointment (where appropriate), or if a patient was readmitted due to a wound infection. Data was collected on how these infections were treated, and the effect on length of stay post-operatively.

One hundred and eleven operations were carried out by the HPB Team in the three month period from 1st January 2014. Only two wound infections were noted prior to discharge (1.8%). Four patients were re-admitted for a wound infection (3.6%), and five patients (4.5%) were noted to have a wound infection at the first outpatient appointment post-operatively. In total, eight patients were affected at some time post-operatively by a wound infection, representing 7.2% of patients. Those patients did not spend significantly longer in hospital post-operatively (p=0.48). Eleven patients (9.9%) experienced an infection other than a wound infection.

These results are in line with expected national wound infection rates. However, there is room to improve. These patients affected by wound infections will be studied in greater detail to determine whether all aspects of NICE guidance was followed.
Clinical audit of the management of pyloric stenosis
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Background

The current pyloric stenosis guidelines are due for review in July. There have also been recent concerns regarding the transfer time of babies with pyloric stenosis to the regional paediatric surgical centre. The main aims of this audit were to analyse the use of prophylactic antibiotics, the time frame from referral to operation and to identify reasons for potential delays.

Method

The medical notes of 50 patients (identified from a search of electronic operation notes) treated between January 2012 and January 2013 were reviewed. Basic demographic data and the following admission data was collected: time of referral; time of admission; and time of bicarbonate correction. The following operative data was also collected: incision; documentation of prophylactic antibiotic administration; time of nasogastric tube removal; feeding; and evidence of wound infection.

Results

The median age at diagnosis was approximately 5 weeks with a male:female ratio of approximately 3:1. The median time from referral to arrival at the paediatric surgical centre was 11 hours. The median time from referral to bicarbonate correction was 13 hours. The median time from arrival to operation was 22 hours. There were 6 post-operative wound infections in whom 50% had not received prophylactic antibiotics.

Discussion

Overall, the management of pyloric stenosis is going well. The omission of prophylactic antibiotics in a small number of patients is a concern and needs to be improved. There is room to streamline the pre and peri-operative care of these infants. The new guidelines will reflect the issues identified in this audit.
Sepsis in General Surgery
A International Audit investigated at a Local Level
Max Marsden and Saboor Ghauri
Salisbury District Hospital

Background
Adherance to the 2004 “Surviving Sepsis” guidelines has been shown to reduce overall mortality. This trainee-led surgical audit was part of an international study which included 101 centres. The main aims were: to identify the proportion of emergency surgical patients admitted within each category of sepsis; to establish compliance with surviving sepsis resuscitation bundles (including the “sepsis six”); and to look at the effect of non-compliance on patient outcome.

Method
Patients were followed prospectively for thirty days during an unplanned general surgical admission to Salisbury District Hospital throughout the week of 21st October 2013. Patients were included if they were over 18 years and had a pathology of vascular, gastrointestinal or breast origin.

Results
29 patients with 17 distinct diagnoses were identified. Three (10%) met the criteria for severe inflammatory response syndrome (SIRS), five (17%) for sepsis and one (3%) for severe sepsis. None of the six patients with sepsis had all six elements of the sepsis six care bundle performed. The most commonly neglected elements were supplemental O₂ (1 out of 6 patients treated) and fluid boluses (2 out of 6 patients treated). One patient died from abdominal sepsis within the study period after an early decision to palliate. Three patients had operations for source control. Mean time to surgical consultant review from admission was 11.8 hours (95% CI 8.88 – 14.75 hours)

Conclusion
Whilst the numbers of patients identified in this local prospective study were modest, it clearly identifies important patterns in the local management of septic patients that can be improved.