barrier which prevented patients from receiving surgery. Referral forms were considered unwieldy. Appropriate BMI thresholds for surgery were expressed as 46kg/m², or 43kg/m² with comorbidity, nearer to NICE recommendations.

Conclusion: This identified a consensus for lower eligibility thresholds, more funding, easier referral, outreach services to remote practices and more information provided to primary care and patients. Surgeons require direct referral and broadly support NICE guidelines.

0578 PDS FOIL PLATE: ITS APPLICATION IN NASAL SURGERY
Louisa Ferguson, Joanne Rimmer, Hesham Saleh. Charing Cross Hospital, London, UK

Aim: To evaluate functional and cosmetic outcomes after use of polydioxanone foil in nasal and septal surgery.

Methods: Retrospective analysis of 60 patients in whom polydioxanone foil was used over a two year period.

Results: Polydioxanone foil was used in a variety of different procedures, including septoplasty, septorhinoplasty and closure of septal perforation. 49% of procedures were post-traumatic. Unperforated foil was used in 96% of cases. There were no acute complications. Two patients required revision surgery (3.3%). The majority of patients achieved satisfactory functional and cosmetic results.

Conclusion: PDS foil is safe to use in the nose, and has a range of applications in nasal reconstructive surgery.

0580 FLUID AND ELECTROLYTE MANAGEMENT: UNDERGRADUATE PREPARATION AND AWARENESS
Aswin Chari 1, John Findlay 2, Saurabh Singh 3, Joanna Cooke 1, 1 University of Oxford Medical School, Oxford, UK; 2 Royal Berkshire Hospital, Reading, UK; 3 University of Cambridge Medical School, Cambridge, UK

Aim: Perioperative fluid management is routinely performed poorly by junior doctors, and is a major cause of iatrogenic morbidity and mortality. The recent ASGBI GIFTASUP guidelines provide explicit surgical guidance, particularly advocating routine use of balanced crystalloids. Poor knowledge amongst junior doctors has been demonstrated. However, no studies have assessed adequacy of undergraduate preparation. This survey sought to do so.

Method: An 18 point questionnaire was distributed to all final and penultimate year medical students in Oxford and Cambridge. 100 responses were received.

Results: There were no differences between universities. Students had received a mean 2.7 hours teaching on fluid management and felt this insufficient. 16% were aware of the GIFTASUP guidelines. 86% knew serum electrolyte concentrations, however, just 53%, 19% and 15% knew the content of 0.9% saline, Hartmann’s and gelofusin. 89% could calculate 24 hour fluid requirements, but only 50-60% could do so for electrolytes. 0.9% saline was the preferred crystalloid for 45%; 37% thought the choice of balanced/unbalanced crystalloid was irrelevant. Significant minorities could not identify relevant clinical considerations for prescribing fluid. Students were, however, reasonably confident in prescribing fluids.

Conclusions: Our survey suggests both the need and opportunity for improvement in undergraduate preparation for surgical fluid management.

0583 A COST EFFECTIVE ANALYSIS OF THE MANAGEMENT OF EPISTAXIS
Jonathan Bird, Stuart Burrows, Warren Bennett, Venkat Reddy, Paul Counter. Royal Devon and Exeter Hospital, Exeter, Devon, UK

Introduction: Epistaxis is the most common ENT emergency and is often treated by nasal packing. Traditionally, these patients have been admitted at least overnight. We analyse a protocol for the outpatient management of such patients.

Methods: Retrospective audit of epistaxis admissions from April 2009 to March 2010 to establish how many patients could potentially be managed as outpatients (allowed home with anterior nasal packing in-situ attended for subsequent outpatient management) based on modified Worthing Hospital criteria.

Results: Of the 72 admissions, 16 were for observation, 56 had anterior nasal packing. If the modified Worthing Hospital criteria had been applied, 35% of patients could have avoided admission.

Discussion: The cost of an overnight inpatient stay costs approximately £315 per day. We conservatively estimate an £8000 saving per year in our department with the introduction of the protocol. With the increasing focus on healthcare costs we need to look at novel ways of cost saving while still providing high quality care. Here we present a simple and effective way of managing those patients who would traditionally be admitted.

0587 PROTOCOL DRIVEN TREATMENT OF DVT: DOES IT PROVIDE THE BEST RESULTS FOR PATIENTS WITH ILLIOFEMORAL DVT
Elizabeth Chandra, Patrick Coughlin, Marc Bailey, Barry McAree, D.C. Bertridge, D.J.A. Scott. Leeds Vascular Institute, Leeds Teaching Hospitals Trust, UK

Aims: Deep vein thrombosis (DVT) is common, causing significant morbidity and mortality. DVT is usually managed using validated protocol, with treatment characteristically being delivered within a community setting. Illiofemoral DVT increases the risk of developing the post-thrombotic syndrome (PTS) some evidence suggests that these may be best treated with catheter-directed thrombolysis (CDT) to reduce the risk of PTS. We aimed to assess the effect of protocol / community delivered care for DVT on a potential treatment option for iliofemoral DVT.

Methods: We identified 490 outpatients that underwent DVT directed venous duplex between October 2009 and March 2010 within a large teaching hospital trust. Suitability for CDT was determined using well established criteria, based on national guidelines and international randomised studies. Positive scans were investigated to establish if outpatient treatment was given.

Results: Of the 490 outpatients, 93 (40 men) had evidence of DVT, of these 38 were iliofemoral. Twenty-two were suitable for CDT. None underwent CDT; 12 were anticoagulated as outpatients, 9 were admitted for anticoagulation and treatment of concurrent illness, 3 were not anticoagulated.

Conclusions: A significant proportion of patients deemed suitable are not offered CDT. For this to occur it needs to be incorporated into current treatment protocols.

0589 SHOULD WARFARIN BE DISCONTINUED BEFORE ENDOVENOUS LASER TREATMENT (EVLT)?
Abdul Hakeem, Stephen Hulligan, Iraj Zeynali, Frank Mason, David Jones. Southport and Ormskirk General Hospital, Southport, UK

Aim: EVLT has been shown to be a safe procedure. Since EVLT is a procedure with no skin incisions, stopping warfarin prior to the procedure seems unnecessary. Our aim was to determine if warfarin should be discontinued before EVLT.

Methods: Retrospective analysis of two consultant practice with respect to warfarin therapy on EVLT patients between Jan 2004-Dec 2009. One of the consultants routinely stopped warfarin at least 3 days prior to EVLT and other consultant continued warfarin. 810-nm diode laser was used.

Results: There were 38 patients in Warfarin Withheld (WW) group and 30 in Warfarin Continued (WC) group. The mean age was 64.7 (32-80) years in WW and 61.9 (25-85) years in WC group. The average length of vein treated and laser energy used was comparable in both the groups. There was only one complication in WW group (n=1, 2.6%), which was phlebitis. There were more minor complications in WC group (n=7, 23.3%) (p=0.0266, Fisher’s exact test). These complications were haematoma (n=1), phlebitis (n=4) and numbness (n=2). The post-EVLT ablation rates were similar in both the groups.
Conclusion: Minor complications are significantly higher in patients who continue their warfarin during EVLT. Large prospective studies are needed to validate this finding.

0591 TRAPPED WIND: A RETROSPECTIVE REVIEW OF PATIENTS UNDERGOING LUNG VOLUME REDUCTION SURGERY
John Massey, Ian Morgan. New Cross Hospital, Wolverhampton, UK

Background: Pulmonary emphysema is a progressive condition characterised by hyper-expansion of airspaces and destruction of lung tissue, causing impaired gas exchange. Lung volume reduction surgery (LVRS) has proven beneficial in numerous studies including one large randomised controlled trial - the NETT (Fishman A, et al. NEJM 2003; 348:2059-7). NICE also published guidance on patient selection and relevant surgical outcomes.

Method: Retrospective analysis of all patients undergoing LVRS over a 4 year period. Data collected were: age, performance status, CT evidence of disease, pre-operative lung function, post-operative complications and in-hospital mortality.

Results: 25 procedures were performed on 21 patients - 4 had bilateral sequential procedures, and 2 bilateral LVRS via median sternotomy. The preferred technique was VATS (88%). For pre-operative percentage of predicted FEV1 of 61.5% +/- 40.9%. The pre-opera-tive percentage of predicted RV mean +/- 1SD is 217.7% +/- 5.2% which compares to post-operative data of 116.3% +/- 69.9%. From 25 procedures carried out, there were 2 (8%) in-hospital deaths. The most common complication was prolonged air leak (44%), comparable to published results.

Conclusion: The data shows a trend to increasing lung function post LVRS.

0592 ENDOVENOUS LASER TREATMENT (EVLT) OF GIACOMINI VEIN – FEASIBLE, SAFE AND EFFECTIVE
Abdul Hakeem, Susie Yao, Iraj Zeynali, David Jones, Frank Mason. Southport and Ormskirk District General Hospital, Southport, UK

Aim: Giacomini or Posterior Thigh Vein transmitting reflux from Long Saphenous Vein (LSV) to Short Saphenous Vein (SSV) and vice versa is not an uncommon finding. Though EVLT has been shown to be effective for LSV and SSV varicosities, its role in the treatment of Giacomini vein is yet to be defined. This study was aimed to report our experience with Giacomini vein EVLT.

Methods: EVLT of Giacomini vein performed between Jan 2006-Dec 2009 was retrospectively studied. EVLT was carried out using 810-nm diode laser. Follow-up was with clinical examination and selective Duplex imaging 8-weeks post-EVLT.

Results: 15 patients were treated for Giacomini vein incompetence along with co-existent LSV (n=4), SSV (n=4) and LSV+SSV (n=7) varicosities. The mean age was 51.8 (30-72) years. The average length of varicosities treated was 29.6 (12-46) cms and average energy used was 74.80 (60-118) joules/cm of vein length. There were no complications. 6 patients had residual veins, of which 4 underwent injection sclerotherapy. 10 patients underwent post-EVLT Duplex, which confirmed complete ablation in all of them and 5 others were discharged without scan.

Conclusion: EVLT of Giacomini vein is safe and feasible with presumed 100% ablation rates and 0% complications in our study group.

0593 EVALUATING THE EFFECTIVENESS OF THE VOXEL-MAN TEMPSOURG IN FACILITATING LEARNING TEMPORAL BONE SURGERY
Jonathan Bird, Guna Reddy-Kolanu, David Alderson. Torbay Hospital, Torbay, Devon, UK

Introduction: The increasing importance of simulation in medical training was highlighted in the CMO 2008 annual report. The aim of this study is to compare cadaveric temporal bone (CTB) simulation with the Voxel-man Temposurg simulator in addressing the 10 features that lead to effective learning.

Methods: 14 ENT trainees and 6 consultants completed a specially designed questionnaire after use of the simulator.

Results: Voxelman Temposurg is more effective in allowing repetitive practice. It allows control of the difficulty level and is more able to capture clinical and pathological variation. The Temposurg appears as good as CTB in curriculum integration. It appears worse with regards to face validity and feedback.

Discussion: The UK requirements to attain a certificate of completion of training are 10 mastoid operations as the only scrubbed surgeon. The achievement of excellence in mastoid surgery is thus likely to require additional methods of acquiring skills.

Cadaveric bone and virtual reality simulation have features which allow effective learning. Some of these are common to both, in some cadaveric bone is better and in others virtual reality is better. Virtual reality can thus be a significant mode of learning in supplementary to cadaveric bone and experience in operating theatre.

0594 SURGERY OR NO SURGERY: AN AUDIT OF SPLENIC TRAUMA, A MULTI-INSTITUTIONAL EXPERIENCE
Nasir Shafi, R.M. Asaf Khan, Simon Cross. Department of Surgery, Watford Regional Hospital, Watford, Ireland

Aim: There is increasing evidence supporting conservative management of splenic injuries. We aim to evaluate the current trends in the management of blunt splenic injuries in the South East region (SER) of Ireland.

Methods: Retrospective chart review of prospectively collected data for four hospitals in SER of Ireland with splenic injuries between 1998-2008. Demographic data and the treatment strategies were analyzed. Surgical or conservative management was compared in terms of the grade of splenic injury, associated injuries, hospital stay, number of blood transfusions and mortality.

Results: During 10-year period, 64 splenic injuries were managed. Average age was 38 years (range 3-81). The diagnosis was established by computed tomography in 40 (62.5%) and ultrasound in 11 (17%). There were 22 Grade I, 13 Grade II, 15 Grade III, 14 Grade IV splenic injuries. Surgery was performed on 41 (64 %) and 23 (35 %) were managed conservatively. Four (6.3%) patients had failed conservative management. Overall mortality was 3%; none of the deaths were due to splenic or associated abdominal injuries.

Conclusion: The clinical decision to perform early operation in suspected splenic injuries depends on patient’s hemodynamic stability and availability of resources. More patients should be given a trial of conservative management.

0596 INFUSING KNOWLEDGE: THE IMPACT OF TEACHING ON INTRAVENOUS FLUID PRESCRIBING
Sarah Kelly, Anna Goodwin, Bettina Lieske. Royal Berkshire Hospital, Reading, UK

Aim: To audit foundation trainees’ (FT) knowledge of IV fluid therapy as described in the ‘British Consensus Guidelines on Intravenous Fluid Therapy for Adult Surgical Patients’ (GIFTASUP).

Methods: A written questionnaire based on GIFTASUP was distributed amongst FTs in one hospital and completed anonymously. The questionnaire was repeated following a lecture designed to educate trainees about the guidelines. Participants were asked to feedback on the relevance of the lecture.

Results: 30 trainees returned the initial questionnaire. Their knowledge of the guidelines was limited; mean mark was 46%. The re-audit questionnaire was returned by 22 trainees and showed an 11% improvement in mean mark. Greatest improvement was seen in questions on: daily fluid/ electrolyte requirements; electrolyte concentrations in different IV fluids; appropriate replacement of different fluid losses; fluid fasting before GA. However, marks fell when asking trainees to suggest appropriate fluid therapy for case examples. All participants thought the lecture was useful and should be offered to future FTs upon starting work.

Conclusion: Many FTs are unaware of GIFTASUP. Our audit showed that a single lecture can improve knowledge of key principles. The lecture is now given at induction and a summary of GIFTASUP is included in the FT handbook.