

ENT

CYMRU  
WALES

2012

**ACADEMIC MEETING**Portmeirion  
Gwynedd**PROGRAMME****19 OCTOBER****10.30****REGISTRATION**

Coffee &amp; Trade Fair

**11.00****PRESENTATIONS****12.30****LUNCH**

Buffet Lunch, Trade Fair &amp; Posters

**1.30****PRESENTATIONS****2.30****BREAK**

Coffee, Trade Fair &amp; Posters

**3.00****PRESENTATIONS****5.00****PRIZES****20 OCTOBER****10.30****ENT CYMRU/WALES**

Business Meeting

**SPONSORS****BBraun**

Peter Bartlett &amp; Julia Sharpe

**Baxter Healthcare**

Nicola Michael &amp; Lindsey Hilton

**Arthrocare**

Claudia Jones &amp; Janine Hutchinson

**DP Medical Systems**

Nigel Bridgewater &amp; Rob Atkinson

**Karl Storz Endoscopy**

Julien Davis

**DTR Medical**

Ian David &amp; Neil McDermott

**Medtronic**

Scott Larkin

**Glaxo Smith Kline**

Gareth Simmonds &amp; Chris Jenkins

**Reckitt Benckiser**

Emily Livermore

**Presentations**

1. **EGFSubA: potential new treatment for Squamous Cell Carcinoma of Head & Neck.**  
V JAISWAL
2. **The concurrent use of Permacol & Polydioxanone plates (PDS) in Septorhinoplasty.**  
A FARBOUD, A JAMEEL, H SALEH
3. **“Where are your tonsils? Examining patients understanding of ENT anatomy.**  
SEJ FARMER, T DAUNCEY & R EVANS
4. **Do Head & Neck cancer patients suffer common types of postoperative morbidity?**  
A.SHAKIR, Z.TAMIMI, J. LYALL
5. **How much information do patients retain?**  
R COSTELLO, W METCALFE, K SAW
6. **"Cleft communication."**  
TE MOORHOUSE, M BULL, SS DAVIS
7. **Shoulder morbidity following spinal accessory nerve preserving neck dissection.**  
B STEW & S BERRY.
8. **Complete Oesophageal stenosis following Head and Neck Radiotherapy.**  
M DODDI, L POPE.
9. **Surgical Management of Facial Skin Cancers: a 16-year retrospective review.**  
HR FOX, D SNOW
10. **Laparoscopic surgery is effective in treating laryngopharyngeal reflux syndrome.**  
K HUGHES, HASSAN A EL HASSAN
11. **Lingual tonsil – Clinically applicable macroscopic anatomical classification system.**  
PRABU VINOD, HEIKKI WHITTET.
12. **The accuracy of radiological staging in Head and Neck cancer.**  
A SANU, D OWENS
13. **The assessment of upper airway obstruction in patients undergoing tonsillectomy.**  
S BATHALA, R ECCLES, A TOMKINSON, S QUINE.
14. **Interpreting and modelling an ethmoidal sinus complex from CT scans.**  
S FISHPOOL, S ATHERTON, C GOODWIN, S BACKHOUSE
15. **Otological packing: are we informing patients what is being put in their ears?**  
H CHING, A AL-HUSSAINI, A RAZA.
16. **Venous thromboembolism prophylaxis in ENT patients – adherence to guidelines.**  
D HUGHES, S WORRALL, D SNOW
17. **Emerging endoscopic surgeries in chronic Eustachian tube dysfunction: A literature review.**  
B MILLER, H ELHASSAN
18. **Educational & clinical benefits of ‘consultant + specialty trainee’ ENT shared clinic.**  
Y NAJAF, S FISHPOOL, H HUNT, S BACKHOUSE.
19. **Tracheostomy tube placement and resistance to flow: does one size fit all?**  
J MOORHOUSE, D OWENS
20. **Streamlining our preadmission clinic**  
E. MORGAN, B STEW, H WILLIAMS.
21. **The Backhouse Pinnaplasty: New surgical procedure for ‘cauliflower ear’ deformity.**  
C MCDONALD, S FISHPOOL, S BACKHOUSE
22. **Impact of binaural versus monaural hearing aids on quality of life.**  
AS GRIFFITHS, HZ WALJEE, AJ HOWARTH.
23. **Head and neck surgical patients; the start of a bridle era?**  
M CAREY, A SANU, D OWENS.
24. **The posterior auricular muscle as an anatomical landmark in pinnaplasty.**  
L EVANS, H KHIRWADKAR, S FISHPOOL, C GOODWIN, S BACKHOUSE.
25. **Systematic review of topical aminoglycosides & quinolones in chronic suppurative otitis media (CSOM).**  
A HARRIS, H ELHASSAN
26. **Evaluating Overnight Pulse Oximetry in the Diagnosis of Paediatric Obstructive Sleep Apnoea.**  
A AL-HUSSAINI, C DAFYDD, R BARBER, B STEW, S RAJAPAKSA, S BERRY.
27. **Are stricter guidelines on the indications for tonsillectomy causing an increase in acute tonsillitis presentations to hospital?**  
R MCLEOD, D LEOPARD, S BACKHOUSE, D OWENS
28. **ENT Day Surgery at the Royal Gwent Hospital: A study of Case Suitability.**  
T AMER, H CHING, S GAYA, A JONES, P CUDDIHY.
29. **Feeling the Heat: Climatic Change and Missed Appointments**  
D LEOPARD, R MCLEOD, V PRABHU, G ROBLIN, D OWENS.
30. **Good pre-treatment dental assessment. An audit of OPT ordering in H&N Cancer.**  
R THOMAS, M CAREY, R GROUNDS, A SANU, D OWENS
31. **E-module: Aid to diagnosis and management.**  
C JONES, M THALLER, A HOWARTH

## PRESENTATION ABSTRACTS

**1. In vitro effects of EGFSuA: a potential new treatment for Squamous Cell Carcinoma of the Head and Neck (SCCHN)***Vibha Jaiswal*

Background: EGFSuA, a novel cytotoxin fused to human epidermal growth factor, acts via cleaving a key protein in the unfolded protein response, GRP 78. Previous work in our laboratory, involving immunohistochemical (IHC) analysis of tissue from 190 patients with SCCHN has established GRP78 as a potential therapeutic target. Data suggests that EGFSuA enters laryngeal squamous cell carcinoma (LSCC) cell lines via the epidermal growth factor receptor (EGFR) and that this can be blocked by pre-treatment with an anti-EGFR monoclonal antibody, Cetuximab. Although cell death by apoptosis occurs, this is seen after 96 hours after treatment.

Aims and methods: (1) to confirm (a) the cytotoxicity of EGFSuA by MTT assay in 4 new LSCC lines, and (b) that abrogation of EGFSuA by Cetuximab is maintained in cells which differ in relative Cetuximab sensitivity, (2) to define EGFR expression in a SCCHN tissue microarray of 195 patients by IHC analysis, (3) to examine the role of autophagy in EGFSuA mediated cell death by Western blot for LC3 and p62 at 8 and 24 hours post-treatment.

Results: EGFSuA is cytotoxic to UTSCC lines at picomolar concentrations (IC<sub>50</sub> of 9 -50 pM). 10 nM Cetuximab abrogates the effect of 60 pM EGFSuA in both relatively Cetuximab-sensitive and -resistant lines. Autophagy, as measured by LC3 flux, is not seen at 8 or 24 hours in LSCC lines.

Conclusion: EGFSuA is a potential adjuvant treatment for a subset of patients in SCCHN. Although further molecular mechanisms of EGFSuA actions need to be clarified, preliminary Xenograft optimisation is ongoing, with a view to completing pre-clinical testing of EGFSuA, by the mdm2/p53 Laboratories and the Mersey Head and Neck Oncology Group.

**2. The concurrent use of Permacol and Polydioxanone plates (PDS) in Septorhinoplasty***<sup>1</sup>Amir Farboud, <sup>2</sup>Ayesha Jameel, <sup>2</sup>Hesham Saleh*

1. WREXHAM MAELOR HOSPITAL, NORTH WALES 2. CHARING CROSS HOSPITAL, LONDON

Aim: We present a case series describing our experience using the biomaterials Permacol and PDS together in complex septorhinoplasty, outlining indications, success rates and complications.

Method: Retrospective analysis of one Consultant Rhinologist's experience in a tertiary referral centre over a two year period.

Results: Overall 8 patients were identified. All patients had previous nasal surgery and complex anatomical defects ranging from alar collapse to prolapsed septal cartilage. The principle complaints were that of nasal obstruction and cosmetic deformity. The procedure was successful in all but one case. Two patients required further surgery, the first for excision of a dorsal scar and the other for a further reconstruction with a rib graft, which was successful.

Conclusions: Permacol and PDS can be safely used together in challenging cases of septorhinoplasty. In this way they are safe, effective and versatile options where the patient's own cartilage or a single biomaterial are insufficient.

**3. "Where are your tonsils? Examining patients understanding of ENT anatomy.***Sarah EJ Farmer, T Dauncey & R Evans*

DEPARTMENT OF OTOLARYNGOLOGY HEAD & NECK SURGERY, PRINCESS OF WALES HOSPITAL, BRIDGEND

Background: Anatomical terms are frequently used during patient consultations in ENT. Patient understanding of these terms is important as any misunderstanding has potential adverse implications for doctor-patient communication, health education and consent for surgery. "Giving patients information in a way they

can understand" is a key principle of the GMC guidance on consent.

Aim: To determine whether patients understand common ENT anatomical terms and to identify factors that influence understanding.

Method: Patients seen at the department during a two-week period were invited to complete an anonymous questionnaire. The questionnaire included basic socio-demographic questions and asked patients to identify 7 common ENT anatomical terms using four answer multiple-choice diagrams. Statistical analysis was performed using SPSS 16.

Results: 73 patients completed the questionnaire (56% female, 44% male) with a mean age of 47 years. The median number of correct responses was 5 (range 2-7). Patients were best at correctly identifying the larynx (88%) and tongue (85%) and worst at identifying the septum (59%) and uvula (64%). There was no statistically significant association between total score and gender or whether the patient was a new or follow-up patient ( $p=0.55$  and  $p=0.407$  respectively). There was a significant difference in total score between patients grouped according to level of education ( $p=0.01$ ). There was no correlation between age and total score ( $p=0.53$ ). The nature of the patients' complaint had no influence on ability to correctly identify anatomical terms. The most common misunderstanding was tonsils being confused with uvula.

Conclusions: Patients frequently misunderstand common ENT anatomical terms. Health care professionals should not assume this knowledge and need to check patient understanding and provide information as appropriate.

**4. Do Head and Neck cancer patients suffer from common types of postoperative morbidity?***A. Shakir<sup>1</sup>, Z. Tamim<sup>2</sup>, J. Lyall<sup>2</sup>*

1. DEPARTMENT OF OTOLARYNGOLOGY, GLAN CLYWD HOSPITAL, RHYL, 2. DEPARTMENT OF ORAL & MAXILLOFACIAL SURGERY, JAMES COOK UNIVERSITY HOSPITAL, SOUTH TEES NHS TRUST.

Aim: To ascertain whether post operative Head and Neck cancer patients suffer from recurrent and avoidable morbidity

Methods: A retrospective case note audit was undertaken for all Head and Neck Cancer patients undergoing curative surgical treatment in the period January 2011 – June 2011 in a Northern Oral & Maxillofacial unit. Patient stratification used the validated ACE-27 assessment tool. Severity of oncological surgery and postoperative complications that occurred prior to discharge were recorded. Complications were categorised into cardiorespiratory, nutritional, surgical site, miscellaneous and death. Standards of reference were ascertained from a review of the Head and Neck Cancer patient care<sup>1</sup>.

Results: A total of 32 patients were included in this retrospective audit. Average age was 66 years (range 28-93 years), gender split of 16 males and 17 females. Median inpatient stay was 5 nights (range daycase-31 nights). Patients were ACE-27 grade 0 (7 patients), grade 1 (15 patients) or grade 2 (11 patients). Complications occurred in 8 patients postoperatively, cardiorespiratory (2 patients), surgical site (3), miscellaneous (5) and one death.

Conclusion: Preoperative optimization, surgical technique and postoperative care regimes have not led to a recurrent series of morbidity in this group of patients, whom often have multiple comorbidities.

**5. How much information do patients retain?***Rhodri Costello, Metcalfe W, Saw K*

SINGLETON HOSPITAL

Background: Patients understanding of operations, their risks, benefits and alternatives is central to the consent taking process, but also to their pre and post operative care i.e. secondary post-tonsillectomy bleed patients understanding the need to seek emergency medical attention. We were interested in determining how much information explained to a competent patient pre-operatively was retained until the morning following surgery.

**Method:** The study was explained to competent adult patients the morning after their surgery, and those consenting to be involved were given data collection sheets to complete. Patients were requested to complete the data collection sheets without reference to the carbon copy of their consent form. All day case patients were omitted from the study due to concerns about anaesthetic effects on results.

The data collection sheets asked a mixture of objective and subjective questions. Data collection sheets were collected and compared with the patients consent form, and missing information was noted.

**Results:** A majority of competent adult patients could not list all the explained risks, or impact of those risks, for the operation they had undergone. Most patients felt the amount of information given to them pre-operatively was sufficient and only a small minority sought extra information.

**Conclusion:** Patient education is an ongoing process, which does not stop at the signing of the consent form. Information should be constantly reinforced to patients to ensure a safe discharge home. As a result of our study we would suggest ensuring all patients are given the carbon copy of their consent form for their reference at any time. Information given to patients preoperatively should be emphasised on the post-operative ward round, and on the ward round prior to discharge.

## 6. "Cleft communication."

*Toby E Moorhouse, M Bull, SS Davis*

DEPARTMENT OF OTORHINOLARYNGOLOGY, SINGLETON HOSPITAL.

**Introduction:** A considerable proportion of patients with Cleft Palate (CP) and Cleft Lip and Palate (CLP) develop middle ear disease: CP: 68%, CLP 76%; with almost 50% of patients having problems by their first birthday. Current guidelines for UK cleft services emanate from the 1998 Clinical Standards Advisory Group report on Cleft Lip and Palate services. These stipulate ENT and Audiology input for all cases of CP and CLP. Initially this is before the age of 10 months, with yearly review until three years of age; patients are then to be reviewed at school entry and again aged ten. If a patient is identified as having persistent middle ear disease more frequent review is to be considered. Current practice across South Wales was compared with these guidelines.

**Method:** A systematic retrospective cleft casenote review of consecutive patients born in 2005, following all patients to the point of school entry review. ENT input was recorded for each case as well as the presence of middle ear disease recorded clinically and audiologicaly.

**Results:** Total number of 36 patients with CP and CLP were identified in this period. There were incomplete data in 18 cases (50.0%); no record of ENT input n=16, no documented audiology n=2. Of the remaining 18 patients, 7 had normal hearing (38.9%), with 11 cases (61.1%) having a conductive hearing loss (unilateral, n=4; bilateral n=7) at five years.

**Discussion:** The need for effective communication between local services and the managed clinic network is apparent, given the absence of data. As a result of this audit new South Wales guidelines are being introduced, these include a focus on sharing of information centrally.

## 7. Shoulder morbidity following spinal accessory nerve preserving neck dissection.

*Ben Stew & S Berry.*

DEPARTMENT OF ENT SURGERY, ROYAL GLAMORGAN HOSPITAL.

**Objectives:** To assess post-operative shoulder morbidity in patients undergoing various types of spinal accessory nerve sparing neck dissection.

**Design:** All data was collected prospectively. A standardised quality of life questionnaire was used to assess morbidity subjectively. Physical examination of the shoulder, including range of motion with a goniometer and muscle strength using the Oxford scale, was performed to assess morbidity objectively.

**Setting:** Head and Neck cancer department at Royal Glamorgan Hospital.

**Participants:** All Head and Neck cancer patients who underwent neck dissection between March 2010 and October 2011.

**Main outcome measure:** The relationship between the level of neck dissection, with or without adjuvant radiotherapy and degree of post-operative morbidity.

**Results:** In total 50 neck dissections were performed during this timeframe of which 44 were suitable for the study. All levels of neck dissection were associated with a degree of shoulder morbidity. Clearance of level V nodes was associated with the greatest degree of shoulder stiffness and weakness. Adjuvant radiotherapy did not influence patient outcome.

**Conclusions:** The study confirms that level V dissection is associated with significant shoulder morbidity despite spinal accessory nerve preservation.

## 8. Complete Oesophageal stenosis following Head and Neck Radiotherapy: Our series and review of literature

*Mouli Doddi, L Pope.*

SINGLETON HOSPITAL.

Dysphagia is a common and functionally significant complication of Head and Neck cancer radiotherapy. However, complete oesophageal stricture following radiotherapy is uncommon, with a reported incidence of 0.8-4%. It significantly affects the quality of life and the management options are limited and difficult. We present a small series of 3 such cases, which we recently encountered and a review of world literature. There is a growing body of evidence on Combined antegrade retrograde dilatation (CARD). Its efficacy, outcomes and practicalities are discussed.

## 9. Surgical Management of Facial Skin Cancers: a 16-year retrospective review

*Hannah Rosalie Fox, David Snow*

WREXHAM MAELOR HOSPITAL

**Introduction:** Skin cancer is one of the most common types of cancer in the world, with the face being a common site of presentation. In the UK in 2010, there were around 13,000 new cases of malignant melanoma reported, and 100,000 cases of non-melanoma skin cancer, however it is known that non-melanoma skin cancer is significantly under-reported. Both types of skin cancer are increasing in incidence over time.

The surgical management of facial skin cancer is a core component of the ENT curriculum, and is likely to represent an increasing workload for all ENT practitioners in the future. Here, we report the 16-year experience of managing facial skin cancer in a district general hospital, under the care of a single consultant with a specialist interest in such patients.

**Method:** A retrospective review was performed of an operative database containing all of the procedures performed under the care of a single consultant. The data included dated from 1<sup>st</sup> August 1995 to 1<sup>st</sup> November 2011. Patient demographics, site of lesion, histological diagnosis and outcome were documented. Where patients had multiple lesions removed these lesions were reviewed individually. Where data was missing the hospital pathology system and patient records were consulted.

**Results:** Surgery was performed on 1740 lesions, with 1218 being operations on single lesions. Patient age range was 12-98 (median 73). On histological review 1516 (88.7%) of lesions had clear margins. Basal cell carcinoma was the commonest histological diagnosis. Of the skin cancers, specific sites on the face had a higher likelihood of close surgical margins. 57 (3.3%) lesions required a second operation, 16 (0.9%) lesions underwent post-operative radiotherapy, and 1 (0.06%) lesion had further dermatological treatment.

**Conclusion:** Skin cancer is increasing, and likely to represent an increasing proportion of ENT workload. Increasing our understanding of the surgical management of facial skin cancers is essential. We believe that this review contributes further useful information to the published literature.

## 10. Laparoscopic surgery is effective in treating laryngopharyngeal reflux syndrome

*K Hughes, Hassan A ElHassan*

SINGLETON HOSPITAL

**Objectives:** To assess whether laparoscopic surgery is an effective treatment of laryngopharyngeal reflux symptoms by evaluating the literature available since 2003.

**Method:** Pubmed, OVID and COCHRANE databases were used to search for relevant studies. All studies that fulfilled the inclusion criteria were critically appraised using CASP tools and guidance from literature<sup>1,2,3</sup>.

**Results:** Nine quasi-experimental pretest and posttest trials met the inclusion criteria and were included in the review. Eight out of the nine studies reported alleviation of LPR symptoms based on their RSI, all five of the studies investigating laryngeal signs showed improvement and the two studies which utilized a QOL scale reported enhanced quality of life following antireflux surgery.

**Conclusion:** Laparoscopic surgery may be an effective treatment for LPR.

## 11. Lingual tonsil – Clinically applicable macroscopic anatomical classification system

*Prabu, Vinod; Heikki Whittet.*

DEPARTMENT OF ENT, SINGLETON HOSPITAL, SWANSEA

The lingual tonsil is often overlooked cause for a variety of symptoms. This includes globus sensation, voice change, snoring and obstructive sleep apnoea and lingual tonsillitis. Unlike the palatine tonsil, there is no published system for the description and documentation of the appearance of this structure. Classification is helpful for baseline description, communication, assessment and outcome of interventional treatment. We assessed 100 patients undergoing routine out-patients endoscopic examination of the larynx for variety of indication. Lingual appearance was described.

The following classification system was derived:

Grade 1 – minimal visible lymphoid tissue, unhindered view of the median glosso-epiglottic fold, submucosal vessels visible, valleculae clear of lymphoid tissue

Grade 2 – prominent lymphoid tissue partially obscuring median glosso-epiglottic fold and filling valleculae

Grade 3 – florid lymphoid tissue completely filling the valleculae and obscuring the median glosso – epiglottic fold and or encroaching upon the epiglottis

Presenting representative example grades to a group of otorhinolaryngologists, validated this classification. Intra-observer agreement was recorded and analysed using kappa statistics.

## 12. The accuracy of radiological staging in Head and Neck cancer: Are patients being under or over treated?

*Ameeth Sanu, D Owens*

UNIVERSITY HOSPITAL OF WALES, CARDIFF

**Introduction:** The prognosis of patients diagnosed with squamous cell carcinoma of the head and neck region depends on the tumour size and the presence of metastasis in the lymph nodes. Therefore it is important to assess the presence or absence of metastasis in the lymph nodes prior to planning management. In recent years, the use of CT scan and ultrasound scanning of the neck as staging investigations have become increasingly popular. However, the reliability of these investigations in assessing the presence of metastasis in the neck nodes remains to be fully investigated.

**Aim:** The study aims to assess if CT scan and/or an ultrasound scan can reliably predict the presence of metastasis in the neck nodes.

**Methods:** A retrospective study using the theatre and clinical portal database was undertaken of all patients who underwent neck dissection in the University Hospital of Wales between 2007

and 2011 for Head and Neck cancer. Extracted data were assessed for pre-operative radiological staging of the neck (rN) and the post-operative pathological neck stage (pN). Level of correlation of results was assessed using Cohen's Kappa. Demographics of patients undergoing neck dissection were also assessed

**Results:** 88 patients were identified (X Male, X female) as having undergone neck dissection over the 5 years of the study. Among them, 75 patients underwent unilateral neck dissection and 13 underwent bilateral neck dissections. Hence a total of 101 neck dissections were included in the study. Eighty-four patients (95%) had pre-operative CT scan and 64 (72%) had pre-operative ultrasound scanning of the neck.

CT scan provided accurate staging of the neck in 55% (53/96) of the patients. However, the CT scan up-staged the neck nodal status in 22% (21/96) of the patients and down-staged the neck nodal status in 23% (22/96) of the patients.

Ultrasound scan provided accurate staging of the neck in 58% (44/76) of the patients. However, the ultrasound scan up-staged the neck nodal status in 12% (9/76) of the patients and down-staged the neck nodal status in 30% (23/76) of the patients.

**Conclusion:** This study shows that Head and Neck cancer in many patients is being over staged on radiological examination. This has consequences in relation to over treating patients and causing unnecessary morbidity. Over staging may also mislead us in the effectiveness of certain therapies especially if no final pathological specimen is available for scrutiny. Dual assessment with CT and USS appears to reduce over staging. More worryingly in 20% of CT scans undertaken the disease was under staged. This may lead to under treatment and the risk of recurrence.

## 13. A pilot study on the assessment of upper airway obstruction in patients undergoing tonsillectomy +/- adenoidectomy

*Srinivasalu Bathala, R Eccles, A Tomkinson, S Quine.*

**Background:**

Adenotonsillectomy is currently indicated as a treatment for sleep related breathing disorders, because removal of the tonsils opens up the airway and lowers airway resistance to breathing. Overnight pulse oximetry and polysomnography are the two common investigations for the diagnosis of sleep related breathing disorders, but these are overnight and time-consuming procedures. We propose that simple non invasive measurements of peak inspiratory flow rates may help in decision making for patient selection for surgical treatment of sleep related breathing disorders. This measurement may guide us in patient selection, as this will enable the measurement of severity of airway obstruction.

**Aim:**

The primary objective of the study is to obtain new knowledge about the severity of airway obstruction in those patients selected for surgery for treatment of sleep related breathing disorders and to determine this, the patients will be divided into two groups for comparison of airflow measurements. One group that has been referred for surgery for treatment of sleep related breathing disorders and another group that has been referred for surgery for treatment of recurrent tonsillitis.

**Methods and materials:**

This is prospective research study on 50 patients who are undergoing tonsillectomy +/- adenoidectomy at University Hospital Wales. This study has been reviewed and approved by South East Wales Local Research Ethics Committee. Peak oral inspiratory flow (POIF) and Peak nasal inspiratory flow (PNIF) were measured using In check inspiratory flow meters, on the day of surgery. An invitation was sent about one month after the surgery to repeat the peak inspiratory oral and nasal flow measurements.

**Results:**

Inspiratory flow measurements before and after the surgery were comparably different, these results will be statistically analysed and presented in the meeting.

**Conclusion:**

POIF and PNIF may be used as a tool to assess the severity of upper airway obstruction secondary to narrowing of the upper airway due to adenotonsillar hypertrophy.

#### **14. Interpreting and modelling an ethmoidal sinus complex from CT scans**

*Samuel Fishpool<sup>1</sup>, Steve Atherton<sup>1</sup>, Christopher Goodwin<sup>#</sup>, Steven Backhouse<sup>#</sup>*

DEPARTMENTS OF ENT\* & RADIOLOGY<sup>#</sup>, PRINCESS OF WALES HOSPITAL, BRIDGEND, WALES; <sup>1</sup>DEPARTMENT OF MEDICAL ILLUSTRATION, MORRISTON HOSPITAL, SWANSEA, WALES

A strong grasp of paranasal sinus anatomy is essential for ENT surgeons conducting Functional Endoscopic Sinus Surgery (FESS). During a Wales regional training day for ENT Higher Surgical Trainees we presented to the attendees a coronal CT of the paranasal sinuses of an individual awaiting FESS surgery. Using a table tennis ball to be representative of the right orbit and multi-coloured plasticine to be representative of the seven individual right-sided ethmoidal air cells, the trainees were asked to build an accurate 3D model of the right ethmoidal complex. A consultant head & neck radiologist (CG) reviewed the models and rated them according to their accuracy. Our results suggest that experience in paranasal sinus surgery does not necessarily correlate with accuracy in 3D modelling of the ethmoidal cells from CT images. The reasons behind this are varied and open to discussion.

#### **15. Otological packing materials: are we informing patients what is being put in their ears?**

*Ching H, Al-Hussaini A, Raza A.*

DEPARTMENT OF OTOLARYNGOLOGY, ROYAL GWENT HOSPITAL, NEWPORT, WALES.

**Background:** Middle ear packing agents are used in otologic surgery to provide support to the middle ear structures, maintain aeration of the middle ear, and promote haemostasis. However, there is currently a lack of standardisation regarding the use of different types of packing agents. The choice of materials and how they are used remains controversial. This is particularly important because we hypothesised that the most commonly used material is porcine (pig-derived), which would be objected to by some patients. The objective of this study was to delineate current attitudes and practices in the use of materials for packing in ear surgery.

**Methods:** An online survey was designed and distributed to Consultant Otolaryngologists in Wales through Survey Monkey. A response from 21 consultant otolaryngologists (60% of sampled group) was attained.

**Results:** 94.4 % of respondents use Gelfoam for middle ear packing- an absorbable gelatin sponge manufactured from denatured porcine skin. However, 28.6 % of respondents were not aware of this origin of Gelfoam. In addition, 80 % of respondents do not inform patients routinely that Gelfoam is a porcine product that will be used for middle ear packing prior to surgery. 52.9 % of respondents do not provide an alternative ear packing material to Gelfoam if the patient has any objections to it, with 29.4 % of respondents providing Otopore, made from fully synthetic biodegradable foam, as an alternative.

**Conclusions:** Despite a vast array of ear packing materials available, Gelfoam remains the predominantly preferred choice. That stated, it is important that Otolaryngologists are aware of the origins of materials they use and inform patients especially when they are absorbable as is the case with Gelfoam. In cases where patients object to the use of Gelfoam, a viable alternative should be provided.

#### **16. Venous thromboembolism prophylaxis in ENT patients – adherence to guidelines**

*Daniel Hughes, S Worrall, D Snow*

WREXHAM MAELOR HOSPITAL

**Introduction:** Venous thromboembolism (VTE) is an umbrella term that encompasses both deep vein thrombosis and pulmonary embolus. The incidence rate of VTE is common and the condition

is associated with a high mortality rate. The cost of long term management of the complications of VTE is a significant financial burden on the NHS.

**Aims:** Our aims were to assess whether the ENT patients received adequate assessment for VTE risk factors and whether the subsequent prescription of suitable prophylaxis was given. The in-hospital VTE incident rate was recorded.

**Methods:** This prospective study was carried out over a time period of 4 weeks. An audit proforma was created in order to assist with data collection. Data was obtained from patients' notes. The guidelines used in this study were created by ENT UK.

**Results:** The final sample size was 52 patients. 35 cases (67%) were male and the mean age was 53 (range 18 – 87). 39 cases (75%) were surgical ENT patients, the remaining 13 cases (25%) being medical ENT patients. VTE risk factors and contraindications to prophylaxis were recorded. 27 cases (52%) were treated correctly according to the guidelines (if risk factors were present they had been prescribed prophylaxis). The remaining 25 cases (48%) had not shown adherence to the guidelines. The type of prophylaxis was also recorded. The in-hospital VTE incident rate was 0 cases.

**Conclusion:** Despite having a 0% incident rate of VTE development, the data highlights that adherence to the guidelines is poor. By increasing education and clinicians' awareness of the condition, compliance to the guidelines will improve. Emphasis must be placed on the importance of preventative strategies to avoid VTE development. This will result in a more holistic management approach towards hospital inpatients.

#### **17. Emerging endoscopic surgeries in chronic Eustachian tube dysfunction: A literature review**

*Miller, Benjamin<sup>1</sup>, Hassan ElHassan<sup>2</sup>*

<sup>1</sup>COLLEGE OF MEDICINE, SWANSEA UNIVERSITY, UNITED KINGDOM, <sup>2</sup>DEPARTMENT OF OTOLARYNGOLOGY, SINGLETON HOSPITAL, SWANSEA, UNITED KINGDOM

Eustachian Tube Dysfunction (ETD) is implicated in persistent middle ear disease such as Otitis Media with Effusion (OME) and atelectasis. Presently OME is treated with ventilation tubes, which perforate the tympanic membrane and extrude with time. Recent studies have demonstrated the promise of two novel endoscopic approaches to ETD, balloon dilatation Eustachian tuboplasty (BDET) and laser eustachian tuboplasty (LETP), to bring about long-term alterations in Eustachian tube (ET) anatomy and physiology.

**Objective:**

A literature review of the outcomes of BDET and LETP was conducted, measuring efficacy on three criteria (autoinsufflation capability, tympanometry, otoscopy findings), and potential risks.

**Results:**

10 clinical studies into BDET or LETP were identified, containing data on 367-405 ET cases (264 patients). No significant complications were observed in any of the studies. BDET has been performed on 122 ETs (71 patients, 4 studies). Available follow up data demonstrated improvement in autoinsufflation in 95.2% of previously abnormal cases (20/21); resolution of 82.6% previously abnormal tympanograms (38/46); normal findings in 86.4% of previously abnormal otoscopy examinations (38/44). LETP has been performed in 245-383 ETs (193 patients, 6 studies), the former discrepancy emerging from failure in one study to state whether procedures were bilateral or unilateral. Available follow-up data demonstrated improvements in both autoinsufflation and tympanogram profiles, although abnormal results were manifest in a greater proportion of patients on final follow up (8/79 and 83/199 respectively). There was insufficient data to warrant collation of otoscopy examination findings.

**Conclusion:**

Both BDET and LETP appear to be safe, well tolerated, and effective procedures, although BDET appears to provide consistently better results across the comparable outcome measures. Case-controlled phase II trials are warranted to further assess

safety, and to directly compare treatment efficacy against ventilation tubes.

### 18. The educational and clinical benefits of a 'consultant + specialty trainee' ENT shared clinic.

*Yaser Najaf, Sam Fishpool, Harry Hunt, Steven Backhouse.*

DEPARTMENT OF ENT, PRINCESS OF WALES HOSPITAL, BRIDGEND.

**Background** - The August 2009 European Working Time Regulation's (EWTR) 48-hours working week limit has raised concerns regarding the quality of medical training for junior doctors that can be provided as well as the quality of health services delivered to patients. This study examined whether more intense one-to-one 'consultant with specialty trainee' doctor teaching in the outpatient clinic setting would make any difference in the trainees educational progress and clinical effectiveness with regard to patient outcomes.

**Methods** - The study was conducted over 10 months (October 2011-August 2012) in a single consultant's DGH ENT clinic. An ENT Specialty Trainee conducted 2 3-month blocks of solo clinics for new patients from the pooled ENT waiting list. Between these blocks the Specialty Trainee sat in with the consultant during clinic for 3 months. Outcomes of Specialty Trainee performance were measured clinically by Completed Patient Episodes (patient discharged or placed on surgical waiting list) & Ongoing Patient Episodes (patient given follow-up appointment) and educationally by Workplace Based Assessments completed in the trainee's e-portfolio. Empirical and Chi-squared statistical tests were used for data analysis.

**Results** - The intervention of one-to-one outpatient clinic teaching increased the Specialty trainees Completed Patient Episodes rate (60% to 67.5%,  $p > 0.1$ ) and reduced their Ongoing Patient Episodes rate (40% to 32.5%,  $p = 0.001$ ). Educationally the trainee completed with the consultant statistically significantly more WBA's during the one-to-one clinics than solo clinics.

**Discussion** - This study demonstrates a clear educational benefit for trainee doctors of shared teaching clinics 'sitting-in' with consultant colleagues. The statistical trends indicate additionally improvement in clinical decision making by reducing the number of patients being brought back for follow-up appointments that may have been considered as unnecessary.

**Conclusion** - We advocate consideration of Specialty Trainee doctors being 'supernumerary' in the outpatient clinic.

### 19. Tracheostomy tube placement and resistance to flow: does one size fit all?

*J Moorhouse<sup>1</sup>, D Owens<sup>2</sup>*

UNIVERSITY HOSPITAL WALES, CARDIFF, WALES

**Purpose:** Tracheostomy tubes used in standard practice are rigid and of fixed dimensions; differences in placement of one end of the tube affect placement of the other. Natural anatomical variation means that distances from skin to trachea can vary; especially considering the increasing number of bariatric patients presenting to health services (Muhammad JK et al). Case reports have postulated that poorly positioned tracheostomy tubes have been responsible for difficulties in ventilation (Hwang SM et al, Abloa RE et al). This study examines the effect that placement of tracheostomy tubes has on resistance to flow.

**Methods:** A cuffed or non-cuffed tracheostomy tube was inserted into a simulated larynx at graduated depths, pressurised air was then passed through the system. This was repeated at different flow rates to simulate the different stages of inspiration, the pressure before the tracheostomy tube was recorded as a surrogate for resistance.

**Results:** Resistance to flow increases towards the extremities of insertion; maximal insertion required an average of 13.56% greater ventilation pressure over the range of flow rates for the non-cuffed tube. Interestingly cuffed and non-cuffed tracheostomy tubes differed in their ranges of resistance: cuffed tracheostomy tubes offered less resistance to flow when over inserted whereas they provided more resistance when minimally inserted.

**Conclusion:** This model demonstrates that an over inserted or under inserted tracheostomy tube provides more resistance to flow. This pattern of resistance could be extrapolated to patients where spontaneous breathing requires unnecessary respiratory effort or ventilated patients who receive overly pressured ventilation. The study also highlighted that cuffed tracheostomy tubes appear to offer some protection against over insertion in terms of resistance to flow.

### 20. Streamlining our preadmission clinic

*E. Morgan, Stew B., Williams H.*

DEPARTMENT OF OTOLARYNGOLOGY, ROYAL GLAMORGAN HOSPITAL

**Background:** The majority of patients undergoing surgery in ENT are admitted on the same day. Consequently, the need for safe and effective preoperative assessment at preadmission clinic is paramount. The appropriateness of preoperative investigations in general has been subject to debate for many decades. Several studies have concluded that inappropriate preoperative investigations are not only expensive but also ineffective in predicting peri-operative outcome and therefore rarely lead to a change in anaesthetic technique.

**Objective:** We audited our practise at the Royal Glamorgan Hospital, where junior doctors are responsible for running the preadmission clinic. We compared this to the national standard; 'Guideline for preoperative investigations in patients undergoing elective surgery' (NICE 2003) which was edited by CAPAG on behalf of ENT UK in 2006.

**Results:** The results of our first audit loop suggested that in 25% of cases inappropriate investigations were requested. We subsequently devised a departmental protocol in collaboration with the anaesthetic department based on the guidelines, which was displayed in the preadmission clinic. A second audit loop following this intervention demonstrated a significant improvement in our practise.

**Conclusion:** Implementation of a simple standardised protocol has led to significant improvements within our department saving the hospital time and money.

### 21. The Backhouse Pinnaplasty: A new surgical procedure for 'cauliflower ear' deformity correction.

*Cassie McDonald<sup>#</sup>, Samuel Fishpool<sup>\*</sup>, Steven Backhouse<sup>\*</sup>*

DEPARTMENT OF ENDOCRINOLOGY<sup>#</sup>, EALING HOSPITAL, LONDON. DEPARTMENT OF ENT<sup>\*</sup>, PRINCESS OF WALES HOSPITAL, BRIDGEND, WALES.

Acute auricular haematoma is usually caused by direct trauma to the ear. Blood forms between the perichondrium and cartilage, causing scarring and pinna deformity if left untreated. The characteristic deformity has changes to the pinna contours, thickened and irregular projections and protrusion of the ear. It is commonly known as 'Cauliflower ear'. The Backhouse Pinnaplasty was designed to restore the aesthetic appearance of a 'Cauliflower ear' pinna deformity. We describe the surgical technique for the procedure together with cosmetic analysis of preoperative and postoperative images of a patient with chronic 'cauliflower ear' pinna deformity who underwent a bilateral Backhouse Pinnaplasty. The operated pinnae retained the surgically created contours with perceived improved cosmetic appearance by both the surgeon and patient. The patient reported high levels of satisfaction with the operative outcome and has noted continuing improved pinna aesthetics over the initial 4-months post-operative period. The proposal for future operations is careful monitoring of the cephaloauricle angle as this has a large influence on cosmetic appearance. The widespread nature and occurrence of the causative traumatic subperichondrial haematoma, especially in the young male population, and the frequent reluctance to seek acute medical haematoma corrective intervention means that there exists a need for cauliflower ear surgery in the otologists surgical armamentarium.

Dr Michelle Carey, Foundation Year 2.

## 22. Impact of binaural versus monaural hearing aids on quality of life, in 1 on 1 conversations and group conversations.

*Griffiths AS, Waljee HZ, Howarth AJ.*

**Background:** The benefit gained from wearing hearing aids is well recognised. In an ageing population we have seen an increase in the use of hearing aids, including the prescription of binaural hearing aids. Guidelines from NICE, recommend that binaural hearing aids be fitted in all patients with sensorineural hearing loss. Due to interference, cosmetic and financial reasons, some patients are fitted with monaural hearing aids. This audit is an extension of the work previously presented by Dr Waljee entitled 'Impact on quality of life of binaural versus monaural amplification'. It compares data on monaural versus binaural hearing aids in 1 on 1 conversations with background noise and group conversations with background noise.

**Aim:** To determine a difference in quality of life between patients wearing binaural and monaural hearing aids, in these two situations.

**Method:** Added to data collected by Dr Waljee in 2011, I have extrapolated more specific data from the 350 patients that received hearing aids for sensorineural hearing loss within Hywel Dda NHS trust in the last 12 years. This data focussed on questions 2 and 4 of the GHABP: 1 on 1 conversations without background noise and group conversations with background noise.

**Results:** In 1 on 1 conversations 33.5% of patients were satisfied or very satisfied with binaural hearing aids compared to 22% who were not satisfied or very unsatisfied with their aids. In patients with monaural hearing aids 35.4% of patients were satisfied or very satisfied with their aids compared to 23.9% of patients who were unsatisfied or very unsatisfied. In group conversations 32.3% of patients were satisfied or very satisfied with binaural hearing aids compared to 28.4% of patients who were unsatisfied or very unsatisfied with their aid.

**Conclusion:** There is little difference in quality of life between patients fitted with monaural or binaural hearing aids.

Patients report little difference in benefit between monaural and binaural hearing aids. Far too many patients aren't compliant with either monaural or binaural aids. The quantity of young patients sampled was insufficient to compare differences in quality of life between young and old patients.

## 23. Head and neck surgical patients; the start of a bridle era?

*Michelle Carey, Ameeth Sanu, David Owens.*

DEPARTMENT OF OTOLARYNGOLOGY, UNIVERSITY HOSPITAL OF WALES, CARDIFF

**Introduction:** Early enteral feeding is vital for patients who have undergone open pharyngeal surgery to reduce morbidity and mortality. It has become common practice for surgeons to suture feeding tubes into the anterior nasal septum at time of surgery to avoid dislodgement and limit re-insertion complications. Despite this, dislodgement of the feeding tube is all too common. The bridle system has good results at avoiding dislodgement and could be used in head and neck surgical patients.

**Methods:** A cadaveric sheep head was used to test the force required to dislodge a feeding tube. A fine-bore Ryles feeding tube (NGT) was passed and secured into the nasal septum with either an anterior septal suture or bridle. A pulley system of weights was applied until the NGT slipped or snapped. Each weight and condition was repeated three times. The anterior and posterior nasal septum was examined after every intervention for evidence of damage.

**Results:** At a 5 Kg pulling force, the NGT began to distort with the suturing technique but not with the bridle system. At 5.5 Kg the NGT snapped with the suture technique, whereas this was not noted when using the bridle. The bridle was able to sustain a force equivalent to 15.5kg without distortion or snapping. At 16 Kg weight the NGT snapped on its own accord demonstrating that the NGT will snap before the bridle system fails. There was no evidence of damage to the anterior or posterior nasal septum for either technique.

**Conclusion:** In this study, the AMT bridle™ system withstands a higher pulling force when compared to the anterior septal suturing technique. The bridle also appears to protect the NGT against distortion. With the benefits of stronger fixation and reduced tube damage, surgeons should consider using the bridle system when prolonged NGT feeding is necessary.

## 24. The posterior auricular muscle as an anatomical landmark to prevent breaching of external auditory canal skin during pinnaplasty: A radiologically-guided surgical study.

*L Evans, H Khirwadkar, S Fishpool, C Goodwin, S Backhouse.*

DEPARTMENT OF OTOLARYNGOLOGY, PRINCESS OF WALES HOSPITAL

**Objectives**

The role of the posterior auricular muscle (PAM) in the pathogenesis and correction of prominent ears is widespread in the literature. Operative techniques vary but a commonly identified complication is inadvertent perforation of the ear canal skin during removal of post-auricular soft tissue. This study, in pursuit of a clinical anatomical marker during pinnaplasty to prevent surgical intra-operative breaching of external auditory canal (EAC) skin, investigates the identification of the borders of the PAM as a consistent anatomical landmark for the level of the EAC.

**Methods**

A retrospective study was undertaken using the RADIS II radiology database. Paediatric MRI head scans completed with contrast in East Abertawe Bro Morgannwg Health Board over a two-year period were identified. T1 weighted axial MR head images were examined using both multiplanar reformatting and the crosshair facility available on PACs system, allowing the correlation of the level of the belly of the PAM on axial images with the EAC on the corresponding axial plane. Comparative intra-operative clinical photos of the PAM position were also obtained.

**Results**

Thirty MRI scans were identified. All demonstrated that the belly of the posterior auricular muscle lies at least at a level on sagittal views that corresponds to the external auditory canal superior border. Intra operative surgical photos of the muscle confirmed this finding.

**Conclusions** Identifying the posterior auricular muscle as a landmark during pinnaplasty is simple, effective and to be commended to all pinnaplasty surgeons. The muscle position allows surgeons to adjust their operative approach to produce improved surgical results by identifying positively the level of the EAC thus reducing the risk of accidentally breaching the EAC skin during post auricular soft tissue removal.

## 25. A systematic review comparing topical aminoglycosides with quinolones in treating chronic suppurative otitis media (CSOM)

*Andrew Harris, Hassan ElHassan*

SINGLETON HOSPITAL

**Introduction:** Topical aminoglycosides or quinolone eardrops are the treatment of choice for CSOM. Topical quinolones do not carry the risk of ototoxicity in patients with a perforated ear drum that aminoglycosides do. We aim to review studies comparing quinolones and aminoglycosides in treating chronic suppurative otitis media.

**Search Strategy:** A search was carried out of PubMed, Ovid (includes AMED, Cinahl, Embase, Medline) and the Cochrane Database. Bibliographies of review articles were also examined.

**Inclusion criteria**

Randomised control trials published in English on human subjects comparing topical aminoglycosides with topical quinolones for the treatment of chronic suppurative otitis media.

**Main Results:** The initial search revealed 1286 articles. These were examined for eligibility and quality. Seven trials of sufficient quality were found to meet the inclusion criteria, including 739 patients. Six of these included ciprofloxacin and one ofloxacin.

cin, two included gentamicin, two sofradex, two otosporin and one tobramycin. Two studies showed a significantly higher clinical cure rate with quinolones compared with aminoglycosides (93% vs 71%  $p=0.04$  and 76.4 vs 51.8%  $p=0.009$ ); a further two studies showed a statistically significant difference in microbiological cure in favour of quinolones (87.5% vs 30%  $p<0.001$  and 88% vs 30%  $p<0.001$ ). The remaining studies showed no significant difference.

Conclusions: Based on the current available evidence treatment of chronic suppurative otitis media with topical quinolones is at least as effective as topical aminoglycosides. Four of the seven trials found that quinolones are more effective. As quinolones do not carry the risk of ototoxicity that aminoglycosides do, they should be considered first line in managing this condition.

## 26. Evaluating the Utility of Overnight Pulse Oximetry in the Diagnosis of Paediatric Obstructive Sleep Apnoea

*Al-Hussaini A<sup>1</sup>, Dafydd C<sup>1</sup>, Barber R<sup>1</sup>, Stew B<sup>1</sup>, Rajapaksa S<sup>2</sup>, Berry S<sup>1</sup>.*

DEPARTMENT OF OTOLARYNGOLOGY, HEAD AND NECK SURGERY<sup>1</sup> AND DEPARTMENT OF PAEDIATRICS AND CHILD HEALTH<sup>2</sup>, ROYAL GLAMORGAN HOSPITAL, LLANTRISANT, WALES.

### Background

Obstructive Sleep Apnoea (OSA) in children presents a challenging diagnostic problem given the high prevalence, the resource intensity of the gold standard investigation of sleep- laboratory polysomnography and the realisation that OSA poses a serious threat to the healthy growth and development of children. Given the long waiting times for polysomnography and the risk of morbidity from untreated OSA, the alternative of overnight pulse oximetry was sought by our unit. The aim of this audit was to analyse the utility, time delays and effects of pulse oximetry investigations on surgical management in suspected cases of OSA.

### Methods

A baseline first audit cycle was undertaken to assess service provision and inform any necessary interventions. Retrospective evaluation of paediatric patients with suspected OSA referred for overnight pulse oximetry between August 2011 to June 2012 was undertaken. Analysis of demographics, timelines in service provision and data from pulse oximetry studies was undertaken. The validated McGill Oximetry Scoring System was used to classify the severity of OSA.

### Results

A total of 47 children (male: female 24:23) with a median age of 4 years (interquartile range [IQR] 3- 5.75 years) were referred for overnight pulse oximetry in the study period. Snoring was the most common symptom (Chi- squared  $p=0.03$ ) instigating referral for otolaryngological assessment, which took a median of 169 days (IQR 41- 196 days) from primary care. A total of 50 pulse oximetry studies were undertaken, after a median waiting time from request of 61 days (IQR 45.5- 79.5 days) with the mean duration of a study being 9 hours and 7 minutes +/- 20 minutes. A median of 5 days (IQR 2- 14.25 days) was taken to report the studies. 25 patients had normal pulse oximetry, 2 patients did not attend for overnight pulse oximetry, 11 patients had mild OSA with a mean minimum dip in oxygen saturation (min dip SpO<sub>2</sub>) of 80.2 +/- 1.8% of which 9 underwent adenotonsillectomy after a median of 104 days (IQR 78.5- 126 days), 4 patients had moderate OSA with a mean min dip SpO<sub>2</sub> of 78.0 +/- 0.9 % of which 3 underwent surgery after a median of 56 days (IQR 33- 164.5 days), 5 patients had severe OSA with the lowest mean min dip SpO<sub>2</sub> of 60.6 +/- 5.7% (ANOVA  $p<0.0001$ ) of which 4 underwent surgery all with planned post-operative HDU care after the shortest median time of 42 days (IQR 35.25 - 52.75 days, ANOVA  $p=0.07$ ).

### Conclusions

Pulse oximetry shows clear benefits in expediting the diagnosis of OSA and its surgical management, which is being prioritised according to disease severity. However, time to surgical treatment in moderate to severe OSA is substantially greater than current

recommended guidelines; an issue which needs to be addressed and improved in the endeavour of optimising care for children with OSA.

## 27. Are stricter guidelines on the indications for tonsillectomy causing an increase in acute tonsillitis presentations to hospital?: A National comparison between England, Wales and Australia.

*McLeod R, Leopard D, Backhouse S, Owens D*

### Introduction

SIGN guidelines give clear indications for tonsillectomy including: 7 episodes of clinically significant sore throat in 1 year or 5 episodes each year for 2 years. However, are the indication limits set for tonsillectomy too strict? This study examines the incidence of acute tonsillitis with the rates of tonsillectomy on a national scale.

### Method

A retrospective study of data corresponding to tonsillectomy and acute tonsillitis were identified between April 1999 to March 2009. This was undertaken using 3 national electronic patient episode databases: 1) Patient Episode Database of Wales (PEDW); 2) Health Episode Statistics (HES) of England and 3) the Australian Institute and Health and Welfare database (AIHW). Data was explored for total numbers of presentations and operations performed. For comparison data was converted to incidence rate per 1000 population using national population census

### Results

A total of 794,687 tonsillectomies and 536,317 admissions for acute tonsillitis were identified in the countries examined. Over the study period the incidence of acute tonsillitis increased in England and Wales but remained static in Australia. The incidence of acute tonsillitis was higher in Wales and England when compared to Australia ( $p<0.01$  and  $p<0.05$  respectively). The rate of tonsillectomy was lower in Wales and England when compared to Australia ( $p<0.01$ ).

### Conclusion

During the study period tonsillectomy rates fell and acute tonsillectomy presentations increased in England and Wales. No such changes were identified in Australia. These findings may be associated with stricter Tonsillectomy guidelines. Further research is needed to investigate causal factors.

## 28. ENT Day Surgery at the Royal Gwent Hospital: A study of Case Suitability

*Tarik Amer, Hoi-Yi Ching, Sam Gaya, Angharad Jones, Patrick Cuddihy.*

Published data portrays that the overwhelming majority of patients undergoing a 'basket' [1] of ENT procedures have no complications post-operatively, thereby increasing their day case suitability. However, there is limited work on the parental and patient views of same day discharge.

### Aim

The aims of this study are to:

Identify those ENT cases currently performed in an inpatient setting that could be performed in a day case environment.

To ascertain patient and parental views on perceived suitability of these cases for day case surgery.

### Method

We conducted a prospective study over a 3-month period for all consecutive ENT operations included in the RCS 'Basket of Cases' that are not currently performed as day case procedures. Trainees completed a standard questionnaire for each patient at the time of the post-operative day one ward round to assess day case potential.

### Results

#### Day case criteria

96 cases were included for analysis. 98% fulfilled medical and social criteria for day case surgery.



### Tonsillectomy

There were 48 paediatric and 21 adult cases of tonsillectomies in the study period. There were no cases of primary hemorrhage requiring return to theatre. 47% of patients and 48% of parents would have opted for day case surgery.

60 % of adeno-tonsillectomy and 100% of adenoidectomy patients had a preference for day case procedures, FESS cases 85% of patients would have preferred to have gone home on the same day as the procedure despite 5/14 (35%) experiencing bleeding overnight with 2 (17%) required repacking overnight.

### Discussion

This study shows that whilst patients may fit day case criteria, patient perceptions show that in some ENT procedures, day case surgery is felt to be inappropriate. The low complication rates are reassuring but patients' perception of the high risk of bleeding is somewhat at odds with published data.

### 29. Feeling the Heat: Climatic Change and Missed Appointments

*Leopard Daniel, McLeod R, Prabhu V, Roblin G, Owens D.*

#### Background

Missed outpatients appointments cost the NHS around £600m a year. In one year alone, the ENT department at University-Hospital-Wales saw 3244(13%) patients who did not attend clinic. This equates to around 811 hours (202 whole clinics) of wasted time. The implications of missed appointments extend far beyond fiscal matters: the human cost with regard to providing extra clinical manpower, absorbing clerical time and delaying necessary treatment is huge.

We ask; may something as benign as a sunny day influence outpatient attendance?

#### Methods

A retrospective audit was undertaken over a six month period (1st August 2011 to 31st January 2012) of all the patients who "did-not-attend" outpatients clinic for one ENT consultant. Data were extracted using the "Patient-Management-System" database, for age, sex and date of clinic appointment. The maximum outside temperature (as provided by the Met-Office) was recorded for each particular clinic day.

#### Results

1486 appointments were created for one consultant over a 6 month period. During this time, 271(18.2%) patients failed to attend clinic (mean = 2.86 per clinic). Overall, the DNA rate was slightly higher in men (54% vs 46%) and the under 35s made up the majority (53%) of missed appointments (mean overall age = 34.3).

Whilst the "worst offenders" were young men, paediatric clinics were also particularly badly attended.

There is a strong correlation with both very high and very low outside temperatures and rise in DNA rates.

#### Conclusions

The implementation of a variety of solutions to tackle missed appointments has been attempted in the past: Schemes such as "choose and book", fining non-attendees and text reminders have all been trialled with limited success. It is generally accepted that the problem of "DNAs" has no easy solution but the evidence that climate has the potential to influence attendance provides a new focus to approach an old problem.

### 30. Good pre-treatment dental assessment. An audit of Orthopantomogram (OPT) ordering in Head and Neck Cancer

*Rhys Thomas, Michelle Carey, Robert Grounds, Ameeth Sanu, David Owens*

DEPARTMENT OF OTOLARYNGOLOGY, UNIVERSITY HOSPITAL OF WALES, CARDIFF

#### Objectives

To assess compliance of BAHNO guidelines with regards to use of OPT in head and neck cancer

#### Methods

A prospective study of all new patients attending Head & Neck Cancer MDT at the University Hospital of Wales for the first time were identified from MDT folders over a three month period.

First audit cycle: Data were extracted from medical records and IMPAX system examining whether OPTs were available for assessment at the pre-treatment MDT.

Second audit cycle: Following the introduction of a pre-MDT checklist, data were extracted from records on availability of OPTs for assessment at the pre-treatment MDT

Results were assessed for improved OPT availability following the introduction of a pre-MDT checklist as an intervention

#### Results

First audit: only 24.2% patients had OPT prior to MDT, with only 55.6% having an MDT at any stage.

Re-audit: only 43.8% patients had OPT prior to MDT, with only 68.8% having an MDT at any stage.

Statistical improvement was seen in pre-MDT OPT requests ( $p < 0.001$ )

#### Conclusions

Compliance with National Guidance as set out by BAHNO Standards 2009 continues to be poor, however introduction of the pre-MDT checklist has improved compliance.

### 31. E-module: Aid to diagnosis and management

*Ceirios Jones, M.Thaller, A.Howarth*

Aim: To provide a learning resource on common ENT conditions for junior doctors, trainees, General Practitioners and nursing staff to improve patient care.

Background: From personal experience and feedback from colleagues, ENT exposure and knowledge in general seem to be limited amongst junior doctors and GP trainees. It was seen necessary to develop a new accessible learning resource for doctors to improve patient care and the effective use of secondary care specialist services. Before designing a learning resource a questionnaire was distributed to GP trainees on past and present ENT experience and suggestions regarding course content.

Setting: ENT department, West Wales General Hospital.

Sample: 16 GP trainees completed a questionnaire.

Results and Discussion: Out of the 16 GP trainees, 1 trainee did not have any ENT experience at undergraduate or postgraduate level. Majority of the trainees (10) had 2-3 weeks exposure to ENT as a medical student of which half of them had post graduate experience. 63% of trainees did not have any postgraduate experience. Currently GP training within Hywel Dda Health Board does not include an ENT rotation. 75% of the trainees did not regard ENT teaching within GP training adequate and felt there was a need for a learning resource.

Conclusion: Results show a need for a learning resource. The e-module is currently being developed and in the process of being uploaded onto the Hywel Dda NHS trust website. With further input from different ENT departments within Wales our hope is to get the module accessible to all health professionals in Wales via the NHS Wales Learning site.

## Posters

**Detection of Cervical Lymph Nodes in Head and Neck Cancer: A Multicentre audit of the Correlation between Ultrasonic and Histological Findings.**

*McLeod R, Leopard D, Backhouse S, Owens D,*

**The best seat in a noisy restaurant for the hearing impaired: clinical judgement versus an architectural-audiological model**

*Nicola Reeves, Samuel Fishpool, Jacques Grange, John Culling, Steven Backhouse*

**Deviation from Guidelines: Renegade Behaviour or Improving Practise?**

*Leopard Daniel, McLeod R, Prabhu V, Owens D.*

**Is it necessary to perform hemithyroidectomy as a part of total laryngectomy? A retrospective review.**

*Louise Evans, David Owens*

**The change in incidence of thyroid cancer over a ten year period.**

*Louise Evans, Hannah Khirwadkar, Sam Fishpool, Chris Goodwin, Steven Backhouse*

**Do not ignore the warning bleed; the post-tonsillectomy alert card**

*Michelle Carey, Owen Weeks, Alun Tomkinson.*

### ATTENDEES

Simon Browning  
Heikki Whittet  
Robert Evans  
Stuart Quine  
Alun Tomkinson  
Duncan Ingrams  
Huw Williams  
Antony Howarth  
Ray Rivron  
Mario Jaramillo  
Ceri Roberts  
Jon Clarke  
Sandeep Berry  
David Snow  
Richard Anthony  
Graham Roblin  
Alagar Chandra-Mohan  
Dave Owens  
Steve Backhouse  
David Hill  
Jon Osborne

Hannah Fox  
Adam Shakir  
Sarah Farmer  
Andrew Harris  
Kannan Ramachandran  
Amir Farboud  
Hoi Yi Ching  
Mark Thaller  
Daniel Hughes  
Ben Miller  
Naser Najaf  
Sri Bathala  
Daniel Leopard  
Mouli Doddi  
Rob McLeod  
Sam Gaya  
Angharad Griffiths  
Joshua Moorhouse  
Endaf Morgan  
Cassie McDonald  
Hassan Elhassan  
Vinod Prabhu  
Sarah Healy  
Samantha Worrall  
Vish Puranik

Graeme Jones  
Sam Fishpool  
Rhodri Costello  
Ali Al-Hussaini  
Ben Stew  
Ameeth Sanu  
Louise Evans  
Vibha Jaiswal  
Michelle Carey  
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