

# BRITISH ASSOCIATION OF ORAL AND MAXILLOFACIAL SURGEONS

## CLINICAL EFFECTIVENESS MATTERS 2009



It has been a while since we produced a Clinical Effectiveness Matters (CEM). The Clinical Effectiveness Subcommittee and your Regional Coordinators hope that you find it informative and perhaps something for reflection on current practice and a source of debate. The purpose of Clinical Effectiveness Matters is to provide an opportunity for the various regions to disseminate audits for a wider readership. As an Association we are busy locally, regionally and nationally in contributing to audits. The audits in CEM reflect a range of topics and it is not the intention for regions to submit necessarily their 'best' in terms of design and outcome but rather we hope that CEM reflect an interesting variety of issues. The intention is to circulate a CEM each autumn so please discuss with your Regional Coordinator, which two audits you would like to see in next years document.

I am extremely grateful to the Regional Co-ordinators and members of the subcommittee. Both play very key and supportive roles in the audit process. We are busy drafting an audit strategy to help support revalidation. The intention is for the audits to be simple yet clinically meaningful. There will probably be 4 audits each year over a rolling 3-year programme. Data entry will be via a web portal. Current national audits will be part of the audit portfolio. There will be a focus on process and outcome rather than just the number of patients or surgical procedures performed. In addition to helping in benchmarking they will allow opportunity for personal reflection on practice. There will be more information on this development in the next few months.

The 2-year bisphosphonate new case registration project is up and running. Please take this opportunity to look at the website <http://web.rcseng.ac.uk/bijn-project/>. Please make this audit part of your unit's portfolio and new cases from 1<sup>st</sup> June 2009 should be entered.

**Simon Rogers**  
**Chairman of the BAOMS Clinical Effectiveness Committee**

### List of Regional co-ordinators

Region	Name
Armed forces	Andrew Gibbons *
Beds Herts bucks	Chi-Hwa Chan *
Mersey	Simon Rogers *
Northern	Mark Greenwood *
Northern Ireland	Dermot Pierse
North West	Stuart Clark
North West Thames	Bhavin Visavadia *
Oxford	Nad Saeed
Scotland	Ian Holland
South Thames	Jeremy Collyer
South West	Peter Revington
Trent	Iain McVicar *
Wales	Steven Key
Wessex	Nick Baker
West Midlands	Bernie Speculand *
Yorkshire	Kelvin Mizen

- Members of the subcommittee

## ARMED FORCES

### **NICE GUIDELINES FOR THE REMOVAL OF THIRD MOLARS IN MILITARY PERSONNEL**

Parul Bhatia, Andrew Monaghan, Sheena Kotecha  
Royal Centre for Defence Medicine and University Hospitals Birmingham Foundation Trust

**Introduction:** Third molars cause significant morbidity for military personnel on deployment. NICE guidelines do not clearly specify if caries in distal of the second molar is a reason to remove the third molar.

**Aims:** To assess if lower third molars in military patients are extracted in accordance with the NICE guidelines?

**Method:** Data collected prospectively on 80 military patients referred to military outpatient clinic to be assessed for removal of third molars.

**Results:** Mean age 28. Patients had low levels of periodontal disease. 51% of patients had pericorinitis, 35% had caries in distal of second molars, 21% caries in third molars, 4% had no pathology and had no treatment.

**Conclusions:** If caries in distal of second molars is taken as a NICE reason for third molar, removal compliance with NICE guidelines is 100%. The high level of distal caries in second molars is a cause for concern. Further studies should highlight the applicability of NICE guidelines to military personnel.

## BEDS HERTS BUCKS

### **AUDIT ON QUALITY OF REFERRAL LETTERS THAT ARE RECEIVED IN DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY FEBRUARY TO JULY 2009 LUTON AND DUNSTABLE HOSPITAL**

**Author Srivalli Peketi, Clinical observer, Supervisor: Mr. C H Chan Consultant**

The referral process should be efficient and effective for the patient, the referrer and the specialist receiving the letter. It should contain both adequate and accurate administrative and clinical information. Inadequate communication may lead to: Delay in diagnostic process, Duplication of investigations, and improper continuity of care and utility of resources, Polypharmacy, Inappropriate use of clinic time.

**Aims:** To audit a random sample of referral letters sent to the department of Oral and Maxillofacial surgery for their quality and appropriateness.

**Method:** A random sample of 100 referral letters was selected from Feb 2009 to July 2009 which was a 5 month period. The sample included the letters sent to 5 consultants in the department of Oral and Maxillofacial Surgery at Luton and Dunstable Hospital .

**Results:** The results for the 100 referral letters were compiled into a table for analysis.

Criteria	Number/Percentage % of letters
Patient Details were mentioned	100
Patients phone number not mentioned	7
Relevant Medical History not mentioned	45
Dental History (relevant) not mentioned	51
Condition for Referral not mentioned	1
Patient Preferences <b>mentioned</b>	13
Level of Urgency <b>mentioned</b>	15
Dentist's Address not mentioned	1
Any radiographs/ Investigations:	
Radiographs included in	22
Radiographs that were useful	14
Radiographs/investigations not included	43
Radiographs/ Investigations not applicable	35
Any special Needs/ physical impairment <b>mentioned</b>	4

### **Recommendations for improvement:**

- An agreed format of referral letter can be posted on the website of the hospital that is accessible to all the general dental practitioners.
- A copy of the format can be posted along with mentioning of its access in the hospital website to all the general dental practitioners in and around Luton.
- Distribution of the audit to general dental practitioners via the local dental committee.
- Re-audit to be done in 6-12 months.

### **BEDS HERTS BUCKS**

### **LUTON AND DUNSTABLE HOSPITAL NHS TRUST**

### **PATIENT INFORMATION AND CONSENT SURVEY FOR WISDOM TEETH**

Project leads: Mr Chan, Consultant Maxillofacial Surgeon, Miss Clifford, SHO, Clinical Quality Support: Harsha Patel, Clinical Quality Facilitator, Elaine Swanson, Clinical Quality Lead Facilitator

**Aims/ Objectives:** Audit the number of patients who feel are adequately informed of effects after surgery and those who do not.

**Methodology:** The patient questionnaire was completed by patients on their follow up clinic, post operatively. A total of 40 completed questionnaires were returned for analysis.

#### **Summary of Main Findings**

- Approximately 560 patients underwent wisdom teeth extraction between the period July 2003 to July 2004.
- Thirty-six out of forty (90%) cases received information shown on patient information and consent at consultation.
- Thirty-two out of forty (80%) understood the information at consultation and from the remaining eight cases five understood after they received their leaflet.
- Twenty one out of forty cases (53%) indicated as having received a leaflet.
- What wasn't described in simple English?

Diagnosis	1/9	(11%)
Operation procedure	2/9	(22%)
Risks involved	1/9	(11%)
Post-operative instructions	4/9	(44%)
Other	1/9	(11%)
- Were you given alternative treatment options?

Yes	14/38	(37%)	No	24/38	(63%)
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- Thirty-one out of thirty nine (79%) received post operative instructions.
- None of the forty cases indicated they needed additional information.
- Fifty percent of patients gave positive further comments as equally the remaining fifty percent who gave negative further comments
- Fifteen out of forty cases (38%) contained discrepancy with case note documentation in comparison to the patient's recollection of their experience.

#### **Recommendations**

- \* Written guidance is required regarding instruction to patients and documentation within case notes.
- \* An initialled section on the consent form indicating whether the patient has read the leaflet.
- \* Patient information leaflets to be provided and written in other languages.
- \* To ensure post operative instructions are given every time and also documented for day cases and wards by ward nurses
- \* Audit to be repeated some time after recommendations have been implemented.

## MERSEY

### **SUCCESS RATE OF ENDODONTIC SURGERY WITH APICAL ULTRASOUND PREPARATION AND RETROGRADE ROOT FILLING WITH MTA**

K Mukherjee T Lord K Fleming<sup>1,2</sup>

<sup>1</sup>Countess of Chester NHS Foundation Trust, <sup>2</sup>University Hospital Aintree NHS Trust

**Introduction:** The RCS guidelines for Surgical Endodontics (2001) recommend root end preparation using an Ultrasonic tip as it allows good access, gives a better shape to the root end preparation without bevelling and successfully prepares the retrograde cavity. They also state that 'a biologically compatible material should be used where possible. MTA, Super EBA, GIC, Composite resin (with a dentine bonding agent), reinforced zinc oxide/eugenol are the materials considered most suitable'; amalgam should no longer be used. A literature review quoted a success rate at 84% at 12 months<sup>1</sup> using this technique.

**Aims:** Are we treating in accordance with the above guidelines? Are we reaching comparable success rates following our change of practice to the above method?

**Methods:** A retrospective case note audit was done of patients who had undergone apicectomy and retrograde root filling. Patients were reviewed at 1 and 6 months post operatively. 84 patients were identified. Outcome was divided into the following categories:

Successful - tooth asymptomatic, no sinus/mobility/tenderness to percussion and radiographic evidence of bony healing

Unsuccessful - tooth symptomatic , Uncertain - asymptomatic but incomplete bony healing

**Results:** All 84 patients had US preparation and MTA root fillings placed. The outcome was as follows: Successful-83% (72 Cases), Unsuccessful-1% (1 Case), Uncertain-13% (11 Cases) - either lost to follow up or asymptomatic but with incomplete bony infill

**Discussion:** We now use US preparation and MTA for all cases. Using the above method has given success rates in accordance to that which has been reported in the literature. This technique is now being introduced regionally so that it becomes the standard technique. We need to ensure that funding is available to equip each unit with US and MTA in order to achieve this goal.

## MERSEY

### **MERSEY REGION BISPHOSPHONATE RELATED OSTEONECROSIS OF THE JAW AUDIT**

All consultants and SPRs supported by Mr Chris Evans, MFU Audit facilitator

**Background:** Bisphosphonate Related OsteoNecrosis of the Jaw (BRONJ) seems to be a complication that is increasing in recent years. The long-term outcomes are

**Aim:** To audit the number of cases of BRONJ, clinical characteristics and outcome of cases in the Mersey Region.

**Results:**

During 2000 and 2008, 74 cases were registered. (Male: 15 and Female: 59)

\*Average age: 65.4 (Male: 70.5 and Female: 64.2)

\*Three year split: 2000-2002: 6% 2003-5: 37% 2006-2008: 57%

\*68/74 had type of bisphosphonate recorded. 3/68 received both oral & IV (4%). 41/65 received IV (63%) of these 80% received zoledronic acid. 24/65 received oral (37%) of which the commonest was alendronic acid 40%.

\*Cause of BONJ: 46% breast (inc 1 male), 28% osteoporosis, 16% myeloma, 5% prostate, 5% rheumatoid.

\*The majority of cases were associated with dental extractions (88%)

\*Management was 'conservative': chlorhexidine mouth wash, oral antibiotics in the presence of pus, and limited removal of bone if these two measures failed to gain symptom control.

\*Outcome data is limited but would suggest that in the region of 50% of BRONJ caused by oral bisphosphonate healed whilst there was only one case in those caused by IV.

**Conclusion:** There is still a lot we don't know about the incidence, risk factors and outcome of patients with BRONJ. The limited findings of this audit support the need for a national BRONJ new patient registration. The national project started on 1<sup>st</sup> June 2009.

## NORTHERN REGION

### **BASAL CELL CARCINOMA – DO WE NEED TO REVIEW?**

**M.L. Goodson, L.M. Jamieson, R.J. Banks, J.M. Ryan Sunderland Royal Hospital.**

**Introduction:** The aim of this study was to assess the need for review of basal cell carcinomas (BCCs), considering the pressures on and time constraints of outpatient clinics, and to compare the findings with the British Association of Dermatologists (BAD) guidelines for BCC management. We aimed to identify groups of patients thought to be of a high risk of recurrence within our local population.

**Method:** A retrospective analysis of 533 patients with BCCs diagnosed between 1995 and 2000 was undertaken. This cohort of patients was followed up for five years and clinical and histological features associated with recurrence of a lesion were recorded. Recurrence was regarded as same histology from the initial site of treatment on two separate occasions more than three months apart.

**Results:** The recurrence rate within one year of excision of the lesion was found to be 4.6% across all groups. Overall nodular BCCs were most common, and most likely to recur. 33% of patients had multiple lesions. Patients identified as at high risk of recurrence were those with positive histology of deep margins and lesions in anatomically difficult areas from which to excise. Being immunocompromised was also associated with high risk of recurrence as was multiple lesions.

**Conclusion:** All patients with BCC should be reviewed at least for two years after excision. Positive deep margins, anatomically difficult sites and immunocompromised patients should be followed up long-term due to the unpredictability and high frequency of recurrence as well as the development of new lesions.

## NORTHERN REGION

### **AUDIT OF INFECTION RATES FOLLOWING ORIF OF MANDIBULAR FRACTURES.**

**Dr A. Beattie, Newcastle General Hospital.**

**Aims:** To audit infection rates following ORIF of fractured mandibles. To examine antibiotics prescribed pre-op, at induction, post-op and on discharge.

**Methods:** The infections were divided into superficial and deep categories against established criteria. A retrospective three month period was used. Excluded were patients with mid-face fractures and who had arch bars only.

Diagnosis of infection was made by the clinician when clinical signs of infection presented.

Smoking and alcohol histories were included.

**Gold Standard:** Overall 11%, derived from the literature.

**Results:** 63 patients, mean age 27, 89% male. Infection rate of 6.4% (4 patients, 1 deep and 3 superficial). 96% had no complicating medical conditions. There was no difference in infection rates between the group which had no post-operative antibiotics and that which had five days post-operative antibiotics, but numbers limited. 35% had no antibiotics given at induction. There was a wide variation in the type and duration of post-op antibiotics.

**Considerations:** Infection on admission, complicating medical conditions, poor oral hygiene, excess alcohol intake (long-term), location of fracture and delay from injury to treatment.

**Conclusions:** The infection rate was comparable to published rates. There was found to be a lack of clear guidance in post-operative antibiotic prescribing but no evidence that this was required, bearing in mind the limited numbers.

## NORTHERN IRELAND

### **TO ESTABLISH THE REFERRAL PATTERNS FOR OMFS INJURIES TO ALTNAGELVIN HOSPITAL**

By Gemma Dalzell SHO OMFS, Altnagelvin, Supervisors: D Pierse, J Stenhouse, B Swinson

**Aims and Objectives:** To compare case load, and type of OMFS injuries assessed and treated at Altnagelvin, with regard to source of referrals.

Is there a pattern to injury type and cause from the peripheral hospitals referring to this department.

**Results:** 53% of injuries seen at Altnagelvin during this study were from the Northern Ireland catchment area.

47% were from the Southern Ireland catchment area.

Of total injuries, most commonly Assault, then Sport, Falls, RTA and work related injuries.

All areas at least 30% injuries were assault.

Of referral hospitals

-Causeway had least assault related injuries, but most falls and most sporting injuries.

-Sligo had most RTAs

-Letterkenny had most work related injuries

16% of referrals were treated conservatively, and the rest under GA. No fractures were treated under LA during this period.

103 facial injuries were seen in 6 months for an area population of 650,00.

The Republic of Ireland catchment area has a population of 210,00 as against 440,000 in Northern Ireland but referrals from the Republic accounted for almost half of the trauma load. This audit has proven useful in service contract negotiations.

## **NORTHERN IRELAND**

### **BASAL CELL CARCINOMA OF THE HEAD AND NECK: AN AUDIT ON ADEQUACY OF EXCISION OVER A SIX MONTH PERIOD.**

M Thakrar & D Thomas. SHO Supervisors D Pierse, J Stenhouse

**Aims and Objectives:** To ascertain the level of involved margins on pathological examination of BCC excisions. Clinical excision margins recommended by the British Association of Dermatologists are used by the two surgeons.

**Results:** Total number of BCCs = 52

Patients with multiple BCCs = 7 (16.23%)

male=6 (85.7%)

female=1(14.3%)

Nodular BCC's were most common

Local flaps were used in 30 of the 52 cases

The forehead, nose and cheek were the most common sites affected.

All excision margins were clear with two close pathological margins

## **NORTH WEST**

### **PATTERN OF NEW REFERRALS TO THE ORAL AND MAXILLOFACIAL SHO ON CALL** Simon Watkinson (SHO at Manchester Royal Infirmary)

**Background:** The workload and need for the first on call Oral and Maxillofacial SHO is an area of interest, especially in view of Hospital at Night, EWTD and training. The referral pattern to this team of staff was investigated.

**Aims:** The aim was to assess the new referrals and from where and when they arise during the shift working pattern.

**Method:** Within Manchester Royal Infirmary (MRI) there is an Oral and Maxillofacial SHO on call with a shift working pattern of: weekdays (Mon-Fri 8am-8pm), weekend days (Sat and Sun 8am-8pm) and nights (Mon-Sun 8pm-8am). In general there are two patient groups the SHO is contacted about through the bleep. These are either patients already known to the SHO (eg, an inpatient) or referrals of new patients. This review concentrated solely on the new referrals. It documented from where the referrals arose, what they were regarding and the outcome. This was completed for a period of 90 days, recording 180 shifts: 64 weekdays, 26 weekend days and 90 nights.

**Results :** There were a total of 694 new referrals to the on call SHO over this 90 day period. There was a mean of 3.85 bleeps for new referrals per on call shift. Of these 71% were from the MRI A&E, 16% from other A&E units, 9% from the ward and 4% from either a GP or GDP. Overall 30% of referrals were regarding fractures, 30% lacerations, 21% facial swellings, 4% toothache, 4% dentoalveolar trauma, 3% bleeding socket, 3% for a dental review prior to surgery and 5% others. The outcome of these referrals were that 50% were treated and discharged, 18% advice only was required, 17% were brought back to a clinic and 15% were admitted. The predominant differences between the shifts were

that there were more referrals during weekdays (4.42) and weekend days (4.27) than at night (3.33). During night shifts there was a greater percentage of bleeps from MRI A&E increasing to 85% and within these lacerations increased to 45%. In weekday day shifts there was a greater percentage of toothaches (6%) and dental reviews (4%) than at other times. The outcomes varied 13-16% admitted, 37-63% treated and discharged, 12-25% requiring advice, 11-24% requiring an out patient review. The greater figures for treatment and discharge arise from night shifts whilst the greater figures for advice only and clinic review arose from weekday day shifts.

**Conclusion:** This activity pattern supports the need for a first on call 24 hour shift pattern in Oral and Maxillofacial Surgery. As expected, the new referrals decrease at night but still have a mean of over 3 new referrals per shift.

In patient management has not been considered work nor the educational value of such a shift pattern.

## **NORTH WEST**

### **HANDOVER SAFETY**

William Nicholas Allen SHO Oral and Maxillofacial Surgery

**Introduction:** Documentation in the BMA and from the Royal College of Surgeons detailed the potential pitfalls and dangers related to handover errors due to lack of detail / time committed, and the importance of such detail with 'Hospital at Night' systems of multi-speciality management.

**Aims:** The purpose of this audit was to evaluate the performance of the SHO handover at Manchester Royal Infirmary and highlight any potential areas for improvement.

**Method:** 20 patients picked at random were evaluated between August 2008 and June 2009, with Standards accepted were taken from:

1. *The Royal College of Surgeons of England.*

**Safe handover:** Guidance from the Working Time Directive working party. March 2007

2. *British Medical Association.*

*Safe handover: safe patients. Guidance on clinical handover for clinicians and managers.* August 2004

**Areas assessed were:** Name / age, Admission date, Ward/bed, Responsible consultant, Diagnosis, Results of significant or pending investigation. For patient safety a standard of 100% was set.

**Results:** 100% correct documentation was achieved Name / age, Ward/bed, Responsible consultant, Diagnosis, Results of significant or pending investigation. Admission date was not documented for any patient.

**Discussion:** Despite this being a small audit, there was a significantly failing to record the admission date for our patients on the handover. This is important for both planning of operations within recommended time scales, and for also medical management and review of problems associated with head injuries for example. The months audited were chosen when all members of the SHO team had all been working. The articles mention that the time committed to the handover should be part of a working day, an important point with the introduction of the European Working Time Directive and reduction of working hours. This was not the case at Manchester Royal Infirmary, as the SHO's were handing over in their own time; coming in earlier than the time they are due to start, otherwise meaning that the finishing SHO is staying longer than their planned shift time. The audit was presented at a regional audit and subsequently the highlighted areas were addressed. A further audit against the same criteria will establish if we have achieved this goal.

## **NORTH WEST THAMES**

### **AN AUDIT OF FLAPS UNDERTAKEN WITHIN THE MOUNT VERNON CANCER NETWORK**

Mr M Amin, Mr B Visavadia, Mr Kumar and Mr Gilhooly

**Background:** Flaps are commonly used in reconstructive surgery where large areas of soft and/or hard tissue have been removed or lost for a number of reasons, for example in head and neck cancer. Reconstruction can undoubtedly reduce the morbidity suffered by these patients and within our OMFS Department at Northwick Park many patients are managed with these techniques.

**Aim:** To evaluate the various types of flap currently being undertaken and to examine the success rates in order to improve outcomes for future patients.

**Method:** This was a retrospective audit of all patients who underwent surgery involving the placement of a flap within the Mount Vernon Cancer Network between April 2006 and Sept 2008.

**Data collected:**

\*Patient details and reasons for requiring a flap

\*Type of flap

\*Whether the flap was successful

\*Complications

**Results:** 112 patients included within this audit. 62% were male and the mean age was 60. 86% of these patients were undergoing resections for SCC, with the remaining patients having other surgery e.g. benign tumours (5) and osteoradionecrosis (4).

*Types of flap:* 114 flaps were undertaken, of which 79 were free-flaps and 35 were pedicle.

Type of flap	Total Number	No.Success(%)	Number Failure (%)
Radial Forearm Flap	37	36 (97%)	1 (3%)
Anterolateral Thigh	17	16 (94%)	1 (6%)
Buccal Fat	16	16 (100%)	0 (0%)
Fibula	13	13 (100%)	0 (0%)
Pectoralis major	10	10 (100%)	0 (0%)
DCIA	7	7 (100%)	0 (0%)
Nasolabial	7	7 (100%)	0 (0%)
Lat Dorsi	2	2 (100%)	0 (0%)
Lat Dorsi and Scapula	3	3 (100%)	0 (0%)
Temporalis	1	1 (100%)	0 (0%)
Deltopectoral	1	1 (100%)	0 (0%)

**Discussion:** The success rate overall was 98% which is excellent and in both cases of failure the cause was identified. Other complications were identified including: partial dehiscence, loss of muscle and neck haematoma and in each case the problem was managed appropriately.

**Change of practice:** The success rate of flaps is excellent and we need to ensure that this level is maintained and built upon.

**Plans to re-audit** This is an ongoing audit.

**NORTH WEST THAMES**

**A CLINICAL AUDIT TO ASSESS WHETHER THE APPROPRIATE EYE-OBSERVATIONS ARE BEING UNDERTAKEN AT INITIAL PRESENTATION, BY JUNIOR STAFF, FOR PATIENTS PRESENTING WITH ORBITAL/ZYGOMATIC FRACTURES**

Harpoonam Kalsi, Sundip Parekh, Suziye Mehmet and Mr Gilhooly

**Background:** A study by Ord found the incidence of retrobulbar haemorrhage and subsequent loss of vision from zygomatic fractures to be 0.03% which is very low, however as it can potentially lead to loss of vision all patients presenting with zygomatic and orbital fractures should undergo a thorough eye examination. Audits at other units have often found eye observations following such injuries to be poorly documented.

**Aims:** To ensure correct eye observations are being undertaken and recorded by junior staff at initial presentation of injury.

**Method:** This audit was retrospective and included all patients who presented with orbital and, or zygomatic fracture (s) between May and November 2008. A proforma was designed for data collection. Any cases without full notes were excluded.

**Results:** 31 patients were included in the audit.

The following table illustrates the frequency of recording of eye observations:



Observation Recorded	Target/ Standard	Actual achieved (n=31)
Pain	100%	35%(11)
Proptosis	100%	29% (9)
Visual Acuity using a Snellen Chart	100%	55%(17)
Eye Movements	100%	74%(23)
Diplopia	100%	87%(27)
Pupil response to light – DIRECT	100%	55%(17)
Pupil response to light – INDIRECT	100%	55%(17)

### Discussion

Eye movements and presence/absence of diplopia were well recorded, however other standards largely not met, therefore adequate eye observations may well be being undertaken, but are not being recorded by junior staff.

### Change of practice:

\*A standardised eye observations proforma was designed and introduced to be used by all junior staff at initial presentation.

\*Teaching session arranged for junior staff by registrars.

\*Include the whole team – ensure that nurses undertaking eye observations on the ward are happy with what is expected.

**Plans to re-audit:** In 3 months following introduction of eye observations proforma.

## OXFORD

### MYOCARDIAL INFARCTION FOLLOWING THEATRE DIRECT ADMISSIONS FOR HEAD AND NECK CANCER SURGERY

**Background:** It had been noted that following the introduction of theatre direct admissions for head and neck cancer surgery that the patients seemed to be more stressed and show more intra-operative ECG changes.

**Aim:** To determine the incidence of post operative troponin positive myocardial infarction in patients admitted via theatre direct admission compared with those admitted pre-operatively to the ward.

**Method:** Retrospective review of all patients undergoing resection and reconstruction for head and neck cancer between 2003 and 2008 (N = 195).

**Results:** The pre-operative ward admission cohort was 131 with 33 (25% of cohort) having a troponin request and a positive rate of 7%. In the theatre direct admission group the patient cohort was 15 with 7 patients having a troponin request (47% of cohort) and 20% of the cohort were positive.

**Discussion:** There was an increased incidence of myocardial infarction in patients admitted via theatre direct admissions and, although this could have been a cluster irrespective of admission method, it seemed clinically very relevant. Following these findings theatre direct admissions were abandoned for head and neck cancer cases.

**Re-Audit:** There is no plan to re-audit.

## OXFORD

### PAROTID GLAND SURGERY AUDIT

**Background:** An audit to benchmark the department facial nerve dysfunction following parotid gland surgery and to attempt to determine incidence of Frey's syndrome.

**Aim:** If the complication rate was higher than the literature then consideration to having dedicated parotid gland surgeons within the department would be worthwhile.

**Method:** Retrospective audit of parotid gland surgery carried out over a 5 year period ending in 2007. The records for all patients were analysed and the temporary and permanent facial nerve injury rate recorded. Any other complications were also recorded.

**Results:** The figures reveal that taking into account all temporary nerve injury( however mild) that the incidence was in the region of 40%. This is exactly what the literature suggests. The permanent nerve injury rate was 4% and related on the whole to patients where it was predicted that nerve injury may occur (malignancy).

It was agreed that the temporary nerve rate was probably higher than expected and it was agreed to formerly identify parotid gland surgeons. In the future all known benign parotid disease will be treated by 2 surgeons and all known malignant disease by 1 oncology surgeon. The incidence of Frey's syndrome was low but properly not recorded adequately.

**Change of practice:** See above.

**Re-Audit:** A new audit is currently underway and will be completed by the end of 2009.

## **SCOTLAND**

### **PATIENT RECORD KEEPING IN OMFS WARDS IN THE WEST OF SCOTLAND: ARE WE GETTING CLOSER?**

Nazlie Syeed, Clinical Fellow, Vikas Sood SpR

**Introduction:** The need for good quality of record keeping in any medical profession is emphasised by the GMC, GDC and defence unions which all have their associated guidelines. The importance of good record keeping is also stressed during all points of training. It is required, not only to keep a record of all treatment performed and adequate referrals, but also for the growing medico-legal implications in the medical world.

**Aim:** To review the quality of record keeping in Oral and Maxillofacial surgery in-patients in the West of Scotland (WOS).

**Method:** Sixty case notes were reviewed from three Maxillofacial units in the West of Scotland. Data was collected by a single investigator. The standard of record keeping was compared against the minimum data set required as defined by the CRABEL scoring system which has been set at 100%. This involved looking at the initial clerking of the patient, subsequent ward rounds, the consent form and finally the discharge script.

**Results:** The average score was found to be 77% for the notes. There was a marked variance between the results, presenting with a range of 42% to 96%.

The main areas of deficiency were noted with the initial clerking and ward rounds. The time and date were not completed in 61% and 73% respectively, with the name, post and page number not completed in 78% and 83% respectively.

A large number of other areas were also identified, including patient identification in each part of the notes as well as the discharge script being inadequately completed.

**Conclusion:** There are still large deficiencies present in daily note keeping of patients on the ward and is still an area that requires improvement.

**Recommendations:** Use of a pro forma in all of the OMFS units to check required information is collected. Continuation sheets which prompt date, time and identification note keeping, as well as stamps for identification. This will be re audited in 6 months.

## **SOUTH THAMES**

### **OPERATING DELAYS FOR MANDIBULAR FRACTURES**

**Introduction:** One of the findings of the 1998 BAOMS trauma survey was that 75% of patients with fractured mandibles received their operation were treated within 24 hours of admission. In the intervening 11 years there has been a progressive trend towards reduction in out of hours operating and an increasing pressure to keep elective lists full of elective cases. Where does this leave the trauma patient? Our concern is that standards have slipped and trauma patients may be subjected to an unacceptable delay.

**Methods:** As part of an ongoing audit process data was collected from 6 maxillofacial units in the South East with regard to timing of management of patients with fractured mandibles.

**Results:** 102 patients with fractured mandibles requiring operative treatment were identified. The data collected showed that demographics of patients with fractured mandibles are unchanged. Mean operating delays had increased compared to the 1998 data with only 60% of patients receiving their operation within 24 hours of admission. No patients received their operation after 21:00.

**Conclusion:** A trend is identified towards increasing treatment delay for patients with fractured mandibles. A recommendation is made that delays in treatment of mandibular fractures are minimised and that all fractures be treated with 24 hours of admission.

## **SOUTH THAMES**

### **TRANSFUSION IN ORTHOGNATHIC SURGERY**

**Introduction:** Orthognathic surgery has changed over that last 50 years. Improvements in surgical techniques and anaesthesia mean that blood during orthognathic surgery is often minimal and question the need for routine cross matching.

**Methods:** 6 maxillofacial units in the south east collected data on orthognathic surgery and recorded whether patients had blood transfusion in the perioperative period.

**Results:** 85 patients were identified who had an orthognathic procedure. Of these approximately 50% had simultaneous maxillary and mandibular surgery, 25% had mandibular surgery alone and 25% maxillary surgery alone. One patient had a significant intraoperative haemorrhage, however transfusion was not required.

**Conclusion:** Haemorrhage relating to orthognathic surgery is a rare event. Orthognathic surgery is frequently carried out on young patients in whom a high threshold for transfusion is likely. It does not seem necessary to routinely crossmatch patients for orthognathic surgery. The recommendation is that these patients have a group and save only.

## **SOUTH WEST**

### **HAS THE RADIOGRAPHIC OUTCOME FOR ALVEOLAR BONE GRAFTING IMPROVED IN THE UK? A NATIONAL AUDIT OF 2006 PROCEDURES.**

**List of authors** (presenter's name first), include speciality and post held by each author

Mr Peter Revington, Consultant Cleft Surgeon, OMFS  
CRANE Project Team, CRANE Database, RCS England  
Mr Hem Shah, FTTA Orthodontics  
Ms Clare McNamara, FTTA Orthodontics

**Aim:**

Compare the current radiographic outcome in the UK with CSAG outcome for alveolar bone grafting.

**Method:**

Post operative radiographs from procedures performed in 2006 were assessed blindly by three external calibrated examiners on 2 separate sessions. The radiographs were assessed with the Kindelan index. All patients who received an alveolar bone graft were included. The standard used was the success rate as assessed in UCLP cases in the CSAG report (58%).

**Results:**

Radiographs were submitted from 8 of the surgical centres in the UK, with a usable sample of 206 patients. We report the national and anonymous surgical centre descriptive statistics for radiographic outcome as assessed by the Kindelan Index. Intra and inter-examiner reliability also be reported. Out comes are shown to have improved since 1996, with 92% now graded as succesful and all units included are performing to an acceptable standard. Within the confidence intervals of this study, there is no statistical difference between units in this study.

**Conclusion:**

We discuss whether radiographic outcome has improved since the assessment by the CSAG report. This will provide a current benchmark for future national audit when assessing alveolar bone grating in all forms of clefting involving the alveolus.

## **TRENT**

### **THERAPEUTIC BENEFITS OF TMJ ARTHROSCOPY AND ARTHROCENTESIS: A PROSPECTIVE OUTCOME ASSESSMENT.**

Nabeela Ahmed and Andrew Sidebottom, Queens Medical Centre, Nottingham.

**Objective:** Patients who fail to respond to routine conservative measures for TMJ related pain, restriction and locking may be submitted to diagnostic arthroscopy or arthrocentesis, both of which are

associated with significant therapeutic improvement in 70% or more patients. There is no current data on improvements in mouth opening and lateral deviations achieved during and following arthroscopy.

**Method:** This prospective audit presents one hundred and forty patients treated between 2006-2008 from one surgeon's practice who have been followed up at least once at 6 weeks following arthroscopy or arthrocentesis. The patients had a variety of TMJ conditions, but all had joint tenderness. They were assessed pre- and 6 weeks post-surgery for opening, left and right lateral excursions and protrusion in mm measured with callipers. Pain scores were also recorded on 10cm analogue scales.

**Results:** Pain scores improved with intervention, from an average pain score of 37.1 to 16.07 (range 0-100). The improvement in mouth opening ranged from 0-78% (some patients had locking or pain with normal opening pre-operatively). Approximately 86% had sufficient improvement for discharge around 6 weeks. Two cases of temporary forehead weakness were seen which resolved within the timescale of the study.

**Conclusion:** This study shows the improvements in mouth opening and confirms the improvements in pain scores achieved following arthroscopy or arthrocentesis of the TMJ after failure of conservative approaches. Arthroscopy in the hands of a skilled practitioner can be a useful diagnostic and therapeutic adjunct, which can be used repeatedly with low morbidity.

## WESSEX

### **THE IDENTIFICATION OF SURFACE ANATOMICAL LANDMARKS FOR MENTAL FORAMINA AND GENIAL TUBERCLES TO ASSIST IN SAFER MANDIBULAR OSTEOTOMIES FOR SURGICAL ACCESS**

**Divya Sharma (Final Year Med Student), Mohammed Al-Gholmy (ST5 OMFS), Mr B T Evans, Mr A A Webb, Mr N J Baker**

**Introduction:** An osteotomy of the mandible is frequently essential for accessing pathology in the back of the mouth and pharynx. Common complications include infection, delayed/non union, anaesthesia/paraesthesia of the lower lip, chin, and gums, loss of teeth and bone, periodontal defects, and vascular compromise. It is evident that mandibular osteotomies can carry significant risk for injury to the nerve and blood supply of the mandible. Accurate identification of landmarks and placement of bone cuts is essential to avoid damage.

**Objectives:** This study aims to identify surface anatomical landmarks for the mental foramina and genial muscle attachments to better understand the arterial and nerve supply of the mandible. In addition, the cross-sectional anatomy of the mandible will be studied. This will aid the surgeon in the ideal placement of osteotomy bone cuts in the mandible for surgical access to deep-seated pathology in the head and neck, thereby reducing the surgical morbidity of the procedure.

**Method:** This is a clinical- and laboratory-based observational study. 84 dry skulls and panoramic radiographs of the mandible were studied to ascertain the anatomical variations of the mental foramina in adult human mandibles. Measurements were made between mental foramina and the lower border, midline, external and internal oblique ridges of the mandible. 50 CT images and 2 prosected specimens were observed to study differences in muscular attachments to the adult human mandible, as well as variations in mandibular width. We also undertook a 20-year retrospective audit of all patients who underwent a mandibular osteotomy for access surgery at Southampton General Hospital between 1989 and 2009.

**Results:** The results confirm that the position of the mental foramen is variable and only serves as a guide to placement of the access osteotomy. When comparing the genial osteotomy and the mandibular swing osteotomy, it was concluded that the position of the mental foramen and the cross section of the bony mandible both had a significant impact on the post op complication risk. The position of the muscle attachments to the medial aspect of the mandible serves as a better guide to the determination of the blood supply of the mandible and should be used to guide the placement of the osteotomy cuts, with osteotomies placed between the mental foramen and the attachment of the anterior belly of digastric (ie mesial to the canine) having less complications compared to osteotomies placed distal to the canine. Osteoradionecrosis of the jaw and infections were found to complicate 11% and 19% of mandibular swing osteotomies placed mesial to the canine respectively, compared with 50% (both complications) in ones placed distal to the canine.

## WEST MIDLANDS

### **AN AUDIT OF BLOOD TRANSFUSION PRACTICE FOR ELECTIVE HEAD AND NECK SURGERY AT WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST**

**Miss R Walker, Mr C. J. Fowell, Mr V. Bhatt, Mr N. Barnard**

**Objectives:** To develop guidelines for the appropriate peri-operative use of blood products in patients undergoing elective Head & Neck Cancer surgery.

To improve clinical and laboratory efficiency and decrease future wastage of blood products.

**Methods:** Patients undergoing ablative surgery over a 30 month period (01/05/06 – 30/11/08) for head and neck cancer were audited.

Three groups were compared – neck dissection alone, resection of tumour with neck dissection and resection, neck dissection and free flap reconstruction.

Pre-operative blood ordering and post operative usage in these three groups was investigated. Audit standards were defined as per the established literature.

**Summarize results:** 96 patients were audited. 111 neck dissections were completed (81 unilateral, 15 bilateral). The mean fall from pre-operative to post-operative Hb was 3.8g/dl. 367 units of blood were cross-matched (mean 3.86 units). A total of 123 units of blood were transfused (mean 1.43 units).

For all patient groups within the study the cross match to units transfused ratio was 2.25:1. This figure exceeds the recommended average for surgical blood ordering of 2:1.

**Conclusions:**

For most head and neck cancer surgery a pre operative group and screen is adequate. The excessive and inappropriate cross matching of blood is expensive and time consuming. Guidelines have been developed to minimise blood wastage and improve efficiency

## WEST MIDLANDS

### **PATIENTS' PERCEPTION OF DOCTORS' DRESS AND ITS RELATIONSHIP TO HEALTHCARE ASSOCIATED INFECTIONS (HAI).**

Kieron P McVeigh, Catherine E Kelly, Nicholas R Grew, Department of Oral and Maxillofacial Surgery, Royal Wolverhampton Hospital,

**Introduction:** Traditionally doctors dressed fairly uniformly in suits or white coats but they now can be observed to wear a wide range of styles of dress. Changing fashions and attitudes have influenced doctors' style of dress but cross infection measures are increasingly important when deciding how to dress. This is reflected by the introduction of the 'bare below the elbows' dress campaign in 2008. The aim of this study was to document patients' attitudes to the way doctors' dress and their perception of this with regard to Healthcare Associated Infections (HAI).

**Materials and Methods:** Outpatient questionnaire survey of 406 patients conducted at two Maxillofacial Surgery departments over a 4 week period in 2008. Patients were shown colour photograph depicting a male and female doctor in a five different styles of dress and asked to complete a 'tick box' questionnaire. Five point Likert scales were used to assess patients' attitudes to the different dress styles. Further questions explored patients' awareness and attitude to cross infection and HAI.

**Results:** Patients nominated a semi formal style of dress as their preferred option for male doctors and a casual style for female doctors. Around half the patients questioned would be comfortable with doctors wearing surgical scrubs. Three quarters of patients felt that professional image was important, but only half of the patients felt cross infection was important with regard to how doctors should dress. Nearly three quarters felt that doctors should travel to work in alternative clothes to which they wore whilst at work. There was a good awareness of MRSA as a Healthcare Associated Infection and of the importance of hand washing to the reduce transmission of infections.

**Discussion:** This study highlights patients' perceptions with regard to doctor's dress and cross infection issues. Surgical scrubs may represent a possible alternative to the traditional style of doctor's attire and many patients are comfortable with this option, although further promotion would be required to ensure widespread acceptance.

## YORKSHIRE

### DNA AUDIT

The Key Priorities are treating more patients, more quickly and more cost effectively is an area that needs to be focused on. Part of this is to reduce the number of cancelled appointments. In addition to this there is a Trust Policy that aims for a 5% DNA rate for outpatient appointments.

The purpose of this audit is to collect data on the number of DNAs, cancellations, and unfilled appointments. The patients will then be educated about the departmental policy of a maximum of 2 cancellations for an appointment with our Locals department. This intervention will be performed via the standard appointment letter that is sent to patients to inform them of their appointment date (Appendix 1). Data will then be collected again, once this letter has been in circulation. The attendance rate will be reviewed to assess if the intervention improves the DNA and cancellation rate.

#### Results summary:

	DNAs	Cancellations	Unfilled appointments	Total available appointments	Total number of patients seen
<b>Pre-intervention</b>					
May	8%	21%	7%	121	156
June	7%	25%	6%	111	130
<b>Post-intervention</b>					
October	9%	16%	0%	123	150
November	4%	8%	0%	92	118

**Conclusions:** Although the DNA rate has not changed, there has been improvement in the attendance rates and more efficient use of clinic time as there are less cancelled appointments and all appointments were filled.

#### Post intervention

- Almost 50% reduction in the number of cancelled appointments
- No unfilled appointments
- No alteration in DNA rate

**Recommendations:** Amend standard appointment letter to inform patients that failure to attend their 'locals' appointment may result in removal from the waiting list  
Re-audit DNA rate following circulation of modified letter

## YORKSHIRE

### RECORD KEEPING AUDIT

#### Introduction:

The NHSLA Risk Management Standards for Acute Trusts, derived from and replacing the former CNST Standards, were introduced in April 2006. They provide a framework for NHS Trusts to build up an evidence portfolio to demonstrate actions that reduce and manage risk to patients and so improve and maintain the quality of patient care

The NHSLA standards take into account the Department of Health *Standards for Better Health* and support the annual health check conducted by the Healthcare Commission Included in this is the standard of clinical record keeping

As part of the Trust's requirements to monitor and improve its safety of care to patients, and to comply with the Health Care Standards declaration for 2007, an audit of the clinical record keeping standards shown below is undertaken every 12 months across all areas where the patients are admitted for in-patient care

**Aims:** To demonstrate compliance with the NHSLA standards for clinical record keeping.

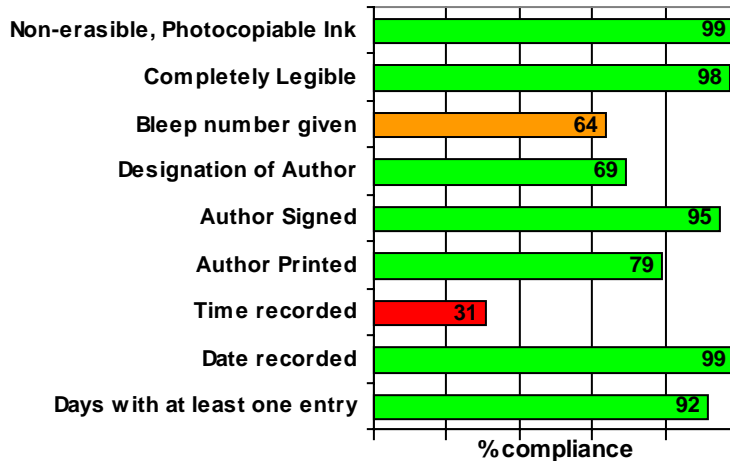
**Methodology:** The case notes of 10 recent discharges per consultant were audited using a paper audit proforma.

**Results:** Three Consultants were audited and a total of 30 episodes of care were audited.

**Length of Admission:** Episodes of care ranged from 1 day to 28 days. Mean episode length was 3 days.

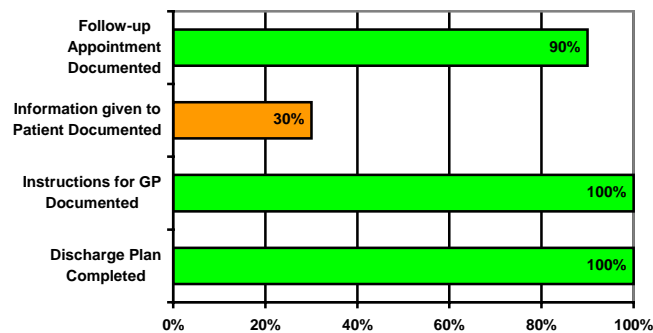
**Entries Made in Notes:** There was at least one entry on 92% of days.

**Items included in Each Entry:** The following graph displays the percentage of entries which had each item.

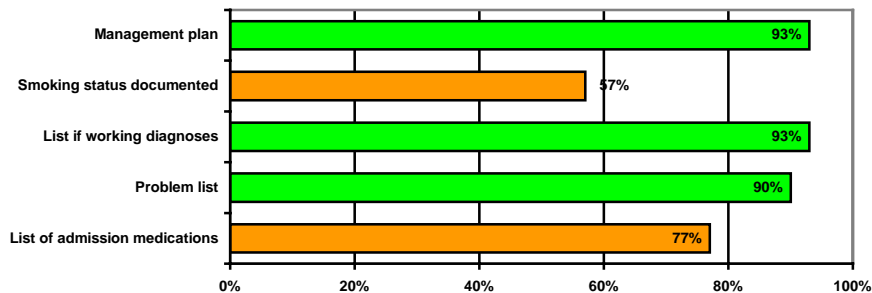


### Discharge Arrangements

The following graph displays the percentage of cases where discharge arrangements were recorded for the episode.



The following graph shows the percentage of episodes which had documented:



### Conclusions

Areas which could be improved include: Time recorded, Providing information to patient, Bleep number given, Smoking status, List of admission medications.