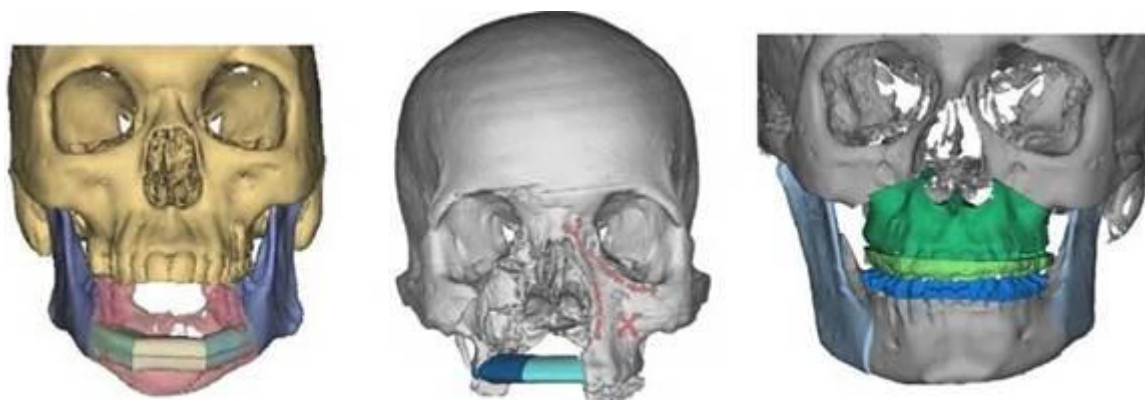


# Oral & Maxillofacial Surgery

## Evidence Update



**November 2017**  
**(Bimonthly)**

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## Lunchtime Drop-in Sessions

*All sessions last one hour*

<b>November (13.00)</b>	
2nd Thu	<b>Literature Searching</b>
10th Fri	<b>Critical Appraisal</b>
13th Mon	<b>Statistics</b>
21st Tues	<b>Literature Searching</b>
29th Wed	<b>Critical Appraisal</b>
<b>December (12.00)</b>	
7th Thu	<b>Statistics</b>
15th Fri	<b>Literature Searching</b>




### Your Outreach Librarian- Jo Hooper

Whatever your information needs, the library is here to help. As your Outreach Librarian I offer **literature searching services** as well as training and guidance in **searching the evidence** and **critical appraisal** – just email me at [library@uhbristol.nhs.uk](mailto:library@uhbristol.nhs.uk)

**Outreach:** Your Outreach Librarian can help facilitate evidence-based practise for all in the oral and maxillofacial surgery team, as well as assisting with academic study and research. We can help with **literature searching, obtaining journal articles and books**, and setting up individual **evidence update alerts**. We also offer one-to-one or small group training in **literature searching, accessing electronic journals, and critical appraisal**. Get in touch: [library@uhbristol.nhs.uk](mailto:library@uhbristol.nhs.uk)

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## Latest Evidence

**NICE** National Institute for  
Health and Care Excellence

[ENT and OMFS exposure prone procedure categorisation](#)

Source: [GOV UK](#) - Source: [Public Health England](#) - 19 October 2017

 **Cochrane**  
Library

[Interventions for managing medication-related osteonecrosis of the jaw](#)

Natalie H Beth-Tasdogan , Benjamin Mayer , Heba Hussein and Oliver Zolk

Online Publication Date: October 2017

**UpToDate**<sup>®</sup>

OpenAthens login required. Register here: <https://openathens.nice.org.uk/>

[Risks of bisphosphonate therapy in patients with osteoporosis](#)

**Literature review current through:** Oct 2017. | **This topic last updated:** Mar 01, 2017.

**INTRODUCTION** — Osteoporosis is caused by the cumulative effect of bone resorption in excess of bone formation. Bisphosphonates inhibit bone resorption with relatively few side effects. As a result, they are widely used for the prevention and treatment of osteoporosis.

This topic will review the risks of bisphosphonates in patients with osteoporosis. The therapeutic use of bisphosphonates in men and postmenopausal women with osteoporosis and their side effects in other conditions (such as advanced malignancy) are reviewed separately.

## Recent Database Articles on Oral and Maxillofacial Surgery

Below is a selection of articles on oral and maxillofacial surgery recently added to the healthcare databases, grouped into the following categories:

- Oral surgery
- Bisphosphonate-related osteonecrosis of the jaw
- Maxillofacial
- Cleft lip and palate

If you would like any of the following articles in full text, or if you would like a more focused search on your own topic, then get in touch:

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### Oral surgery

**Corrigendum to "New approach to improve the keratinised peri-implant soft tissues in patients with intraoral osteocutaneous reconstruction using a free flap" [Br J Oral Maxillofac Surg 55 (September (7)) (2017) 732-33]**

**Author(s):** Patel N.; Patel D.; Kwok J.

**Source:** British Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Corrigendum to "Can a surgery-first orthognathic approach reduce the total treatment time?" [Int. J. Oral Maxillofac. Surg. 46 (2017) 473-482]**

**Author(s):** Jeong W.S.; Choi J.W.; Kim D.Y.; Lee J.Y.; Kwon S.M.

**Source:** International Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Epidemiological study of facial fractures at the Oral and Maxillofacial Surgery Service, Santa Casa de Misericordia Hospital Complex, Porto Alegre - RS - Brazil.**

**Author(s):** Zamboni, Rodrigo Andrighetti; Wagner, João Carlos Birnfeld; Volkweis, Maurício Roth;

**Source:** Revista do Colegio Brasileiro de Cirurgioes; 2017; vol. 44 (no. 5); p. 491-497

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVESto investigate the incidence and etiology of face trauma with diagnosis of facial fracture treated at the Buccomaxillofacial Surgery and Traumatology Service of the Santa Casa de Misericórdia Hospital Complex in Porto Alegre. **[ABSTRACT EDITED]**

### **The bone lid technique in oral surgery: a case series study**

**Author(s):** Sivoilella S.; Brunello G.; Fistarol F.; Stellini E.; Bacci C.

**Source:** International Journal of Oral and Maxillofacial Surgery; Nov 2017; vol. 46 (no. 11); p. 1490-1496

**Publication Type(s):** Article

**Abstract:**The aim of this case series study was to illustrate the bone lid technique implemented using piezoelectric surgery to access mandibular alveolar bone diseases and to assess the clinical and radiographic outcomes. The technique was used to treat 21 consecutive patients with various conditions: cysts in six cases, impacted teeth with associated cysts in nine, keratocystic odontogenic tumours in three, impacted teeth in two, and an endodontic lesion in one. The bone lid was fashioned using piezoelectric surgery and a thin osteotomy insert. After the surgical procedure, the bone lid was replaced and fixed with miniplates. On clinical and radiological follow-up at 12 months, the outcome measures were bone lid integration and alveolar bone volume recovery. Any complications were also documented. The lesion and bone lid healed completely in 19 cases; one patient experienced permanent mild paresthesia and one experienced trauma-induced bone lid necrosis. Computed tomography volumetric analyses conducted on 11 cases indicated a mean recovery of 93.8% of the volume of bone lost. Based on healthy biological reasoning, the bone lid technique with piezoelectric surgery and rigid fixation may be considered a valid alternative to ostectomy for the purposes of bone tissue healing. Copyright © 2017 International Association of Oral and Maxillofacial Surgeons

### **The impact of intraoperative opioid use on survival after oral cancer surgery**

**Author(s):** Patino M.A.; Ramirez R.E.; Perez C.A.; Cata J.P.; Kataria P.; Myers J.; Feng L.

**Source:** Oral Oncology; Nov 2017; vol. 74 ; p. 1-7

**Publication Type(s):** Article

**Abstract:**Objectives To investigate the impact of opioid use on cancer recurrence after oral cancer surgery. We hypothesized that the amount of opioids administered during oral cancer surgery is an independent predictor of recurrence free survival (RFS) and overall survival (OS). Methods After Institutional Review Board approval, we collected demographic, tumor related, intraoperative and survival data of patients who had oral cancer surgery. Multivariable Cox proportional hazards models were used to determine the impact of important covariates on RFS and OS. Results 268 patients were included. After adjusting for significant covariates, the amount of opioids administered during surgery was not an independent predictor of RFS (HR: 1.27 [CI 95%, 0.838-1.924], p = 0.26). However, we observed an association between opioid consumption and shorter OS (HR = 1.77, [CI 95% = 0.995-3.149]. p = 0.05). Conclusions High requirements of opioids during surgery increase the risk of recurrence and mortality by 27% and 77%, although the association is not statically significant. Copyright © 2017 Elsevier Ltd

### **Controversies in Oral and Maxillofacial Surgery.**

**Author(s):** Vega, Luis G; Meara, Daniel J

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. ix

**Publication Date:** Nov 2017

**Publication Type(s):** Editorial

### **Controversies in Anesthesia for Oral and Maxillofacial Surgery.**

**Author(s):** King, Brett J; Levine, Adam

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. 515-523

**Publication Date:** Nov 2017

**Publication Type(s):** Journal Article Review

**Abstract:**The future of office-based anesthesia for oral and maxillofacial surgery is at risk. Oral and maxillofacial surgeons have been on the forefront of providing safe and effective outpatient anesthesia for decades. Recent changes in Medicare policies have had, and will continue to have, a significant effect on the training of oral and maxillofacial surgery residents regarding anesthesia. The outcome of these changes can have a major effect on the specialty of oral and maxillofacial surgery and a cornerstone of the profession.

#### **Effect of Religious Belief on Selecting of Graft Materials Used in Oral and Maxillofacial Surgery.**

**Author(s):** Güngörmüş, Zeynep; Güngörmüş, Metin

**Source:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons; Nov 2017; vol. 75 (no. 11); p. 2347-2353

**Publication Type(s):** Journal Article

**Abstract:**PURPOSEVarious graft materials, such as synthetic and biological products, are used routinely in maxillofacial surgery. These materials are usually derived from porcine, bovine, and human tissues; some religious beliefs forbid the dietary use of substances from certain animal sources. The aim of this study was to evaluate the effect of religious belief on selecting different graft types used in maxillofacial surgery. **[ABSTRACT EDITED]**

#### **Juvenile Idiopathic Arthritis Practice Patterns Among Oral and Maxillofacial Surgeons.**

**Author(s):** Kinard, Brian E; Abramowicz, Shelly

**Source:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons; Nov 2017; vol. 75 (no. 11); p. 2333

**Publication Type(s):** Journal Article

**Abstract:**PURPOSEThe purpose of this investigation is to assess the current clinical practices by oral and maxillofacial surgeons (OMSs) in the United States regarding diagnosis and treatment of temporomandibular joint (TMJ) involvement in children with juvenile idiopathic arthritis (JIA).**MATERIALS AND [ABSTRACT EDITED]**

#### **Value in Oral and Maxillofacial Surgery: A Systematic Review of Economic Analyses.**

**Author(s):** Geisler, Benjamin P; Ji, Yisi D; Peacock, Zachary S

**Source:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons; Nov 2017; vol. 75 (no. 11); p. 2287-2303

**Publication Type(s):** Journal Article

**Abstract:**PURPOSEThe purpose of this study is to describe the state of economic analyses in the field of oral and maxillofacial surgery (OMS). **[ABSTRACT EDITED]**

#### **Prognostic importance of pathological response to neoadjuvant chemotherapy followed by definitive surgery in advanced oral squamous cell carcinoma.**

**Author(s):** Hirakawa, Hitoshi; Hanai, Nobuhiro; Suzuki, Hidenori; Nishikawa, Daisuke;

**Source:** Japanese journal of clinical oncology; Nov 2017; vol. 47 (no. 11); p. 1038-1046

**Publication Type(s):** Journal Article



**Abstract:**ObjectiveThe clinical importance of neoadjuvant chemotherapy (NAC) followed by definitive surgery was retrospectively investigated in clinical Stage III/IV oral squamous cell carcinoma (OSCC).MethodsSurgery was performed for OSCC in 164 patients, including 72 patients who had received NAC (two cycles of cisplatin and fluorouracil) prior to surgery from January 2004 to December 2014. The clinical characteristics and survival parameters of the groups that received and did not receive NAC were evaluated. The pathological response was classified as Grade 0 (no effect), 1a (very slight effect), 1b (slight effect), 2 (moderate effect) or 3 (marked effect), and its correlation with prognosis was investigated.ResultsThere were no statistical differences in survival indicators between patients who received NAC and those who did not (overall survival,  $P = 0.75$ ). The proportion of patients who received NAC in the effective NAC group (Grades 1b, 2, and 3) was 52.8%. After a median follow-up of 35 months, overall survival ( $P = 0.01$ ), disease-free survival ( $P = 0.002$ ), locoregional disease-free survival ( $P = 0.003$ ), and distant disease-free survival ( $P = 0.01$ ) were significantly better in the effective NAC group than in the less effective NAC group (Grades 0 and 1a).ConclusionAlthough NAC had a limited effect on disease prognosis in OSCC, the pathological response to NAC could be an important prognostic indicator for advanced OSCC.

### **Dentoalveolar oral surgery in children and adolescents: organization and surgical treatment in a large, Danish municipal dental service.**

**Author(s):** Grønbaek, Anni Birgitte; Petersen, Flemming; Haubek, Dorte; Poulsen, Sven

**Source:** Acta odontologica Scandinavica; Nov 2017; vol. 75 (no. 8); p. 603-607

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVETo describe a population-based organization of dentoalveolar surgical service for 0 to 18-year old subjects in a Danish municipal dental service, and analyze the type of dentoalveolar surgical interventions needed.MATERIAL AND METHODSThe study was conducted in the Municipality of Aarhus, Denmark during five consecutive school-years. An internal referral system was established within the municipality where patients could be referred to colleagues with a higher level of competencies and more experiences with paediatric dentoalveolar surgery. The analysis includes a total of 1812 children and a total of 2854 surgical interventions.RESULTSAlmost 80% of the patients, representing more than 80% of the dentoalveolar surgical interventions needed, were referred internally. Denudations were the most frequent treatment type (40.3%) carried out, followed by removal of third molars (18.0%). Furthermore, 22 odontomas and 100 supernumerary teeth were removed.CONCLUSIONSThe need of dentoalveolar surgery in children and adolescents is relatively low, but includes a wide range of interventions. An organizational system, where dentists can refer to colleagues who have developed special competencies in this field, results in most of these surgical patients being referred and treated internally.

### **Literature Review of Criteria for Defining Recipient-Site Infection after Oral Oncologic Surgery with Simultaneous Reconstruction**

**Author(s):** Akashi M.; Kusumoto J.; Sakakibara A.; Furudoi S.; Komori T.; Hashikawa K.

**Source:** Surgical Infections; Oct 2017; vol. 18 (no. 7); p. 755-764

**Publication Type(s):** Review

**Abstract:**Background: The lack of uniformity of criteria for defining recipient-site infection after oral oncologic surgery with simultaneous reconstruction is problematic despite numerous studies on this issue. This study aimed to investigate the difference in the criteria for defining recipient-site infection after oral oncologic surgery with reconstruction. Methods: A Medline search was performed via PUBMED using the following combinations of key terms that were tagged in the title, abstract, or both: "surgical site infection-head neck," "surgical site infection-oral cancer," "antibiotic prophylaxis-head neck," and "surgical site infection-oral carcinoma." Search results were filtered

between 2005 and 2017. Articles in which there was no mention of the criteria for definition of surgical-site infection were excluded. Results: The number of articles that met the inclusion criteria was 24. The lack of uniformity in the criteria for defining recipient-site infection in each article appeared to be attributable mainly to differences in whether an orocutaneous fistula and superficial incisional infection were regarded as recipient-site infection. Conclusion: Reconsideration of the categorization of orocutaneous fistula as infection, regardless of the etiology, and differentiation of superficial and deep incisional infections are necessary for correct assessment of recipient-site infection in oral oncologic surgery. © Copyright 2017, Mary Ann Liebert, Inc. 2017.

### **Periodontal surgery improves oral health-related quality of life in chronic periodontitis patients in Asian population**

**Author(s):** Chou Y.-H.; Yang Y.-H.; Kuo H.-C.; Ho K.-Y.; Wang W.-C.; Hu K.-F.

**Source:** Kaohsiung Journal of Medical Sciences; Oct 2017; vol. 33 (no. 10); p. 523-529

**Publication Type(s):** Article

**Abstract:**The effect of periodontal surgery on patients' quality of life was investigated. Sixty patients received regenerative surgery or resective osseous surgery. Oral health-related quality of life and health-related quality of life instruments were used to assess the participants' quality of life before surgery and 4 weeks after surgery. Periodontal surgery can improve patients' quality of life by alleviating the physical pain and psychological discomfort. The scores were lower (more favorable) in the regenerative surgery group, and the functional limitations of the regenerative surgery group improved substantially compared with those of the resective osseous surgery group ( $P = 0.0421$ ). The patients' oral health-related quality of life scores improved significantly after periodontal surgery. Clinicians can take advantage of the positive functional oral health-related quality of life impacts of regenerative surgery. Copyright © 2017

### **Oral surgery II: Part 3. Cysts of the mouth and jaws and their management.**

**Author(s):** Hill, C M; Renton, T

**Source:** British dental journal; Oct 2017; vol. 223 (no. 8); p. 573-584

**Publication Type(s):** Journal Article

**Abstract:**A cyst may be defined as a pathological (or abnormal) body cavity, usually lined by epithelium, which contains fluid (gas or liquid) or semi-solid substances other than (primarily) pus. Even this definition is contentious, as some pathologists prefer the term pseudocyst or cavity when there is no epithelial lining. However, the above definition, based on that of Kramer, is as inclusive as possible. Cysts of the mouth and jaws are fairly common and their management is an essential component of oral surgery. This third article in the series deals with the classification, diagnosis and management of the common cysts of the head and neck.

### **Assessment of pre and postoperative anxiety in patients undergoing ambulatory oral surgery in primary care.**

**Author(s):** Reyes-Gilabert, E; Luque-Romero, L-G; Bejarano-Avila, G; Garcia-Palma, A;

**Source:** Medicina oral, patologia oral y cirugia bucal; Oct 2017

**Publication Type(s):** Journal Article

Available at [Medicina Oral Patología Oral y Cirugía Bucal](#) - from Europe PubMed Central - Open Access

**Abstract:**BACKGROUND To analyze the pre- and postoperative anxiety level in patients undergoing ambulatory oral surgery (AOS) in a primary healthcare center (PHC). MATERIAL AND

**METHODS** Prospective and descriptive clinical study on 45 patients who underwent AOS procedures in the dental clinic of a public PHC of Spain between April and September 2015. Anxiety analysis was carried out with pre- and postoperative anxiety-state (STAI-S), anxiety-trait (STAI-T) and dental anxiety (MDAS) questionnaires. A descriptive, inferential and binary logistic regression analysis were performed for the variables age, sex, educational level, previous experience of oral treatment, type of oral surgery, degree of third molar impaction, surgical time, intraoperative complications, postoperative complications, and pain score with a visual analogue scale (VAS). **RESULTS** The majority were female (57.8%) with a mean age of  $33.5 \pm 9.6$  years. The most frequent procedure was the lower third molar removal (82.2%). The mean pain score on the VAS was  $1.6 \pm 1.8$ . The incidence of complications was low (7.8%). There was a statistically significant association between post- and preoperative anxiety ( $r=0.56$ ,  $p<0.001$ ) and a correlation between pain score and postoperative anxiety ( $Rho= -0.35$ ,  $p=0.02$ ). The likelihood of postoperative anxiety was related to preoperative anxiety ( $OR=1.3$ ,  $p=0.03$ ). **CONCLUSIONS** AOS in a PHC is safe and should be more encouraged in the public primary care. The emotional impact on users was relatively low, highlighting that the preoperative anxiety levels were higher than the postoperative ones. Psychological factors related to pre- and postoperative anxiety should be considered in the AOS carried out in PC.

#### **Compliance with the guide for commissioning oral surgery: an audit and discussion.**

**Author(s):** Modgill, O; Shah, A

**Source:** British dental journal; Oct 2017; vol. 223 (no. 7); p. 509-514

**Publication Type(s):** Journal Article

**Abstract:** Introduction The Guide for commissioning oral surgery and oral medicine published by NHS England (2015) prescribes the level of complexity of oral surgery and oral medicine investigations and procedures to be carried out within NHS services. These are categorised as Level 1, Level 2, Level 3A and Level 3B. An audit was designed to ascertain the level of oral surgery procedures performed by clinicians of varying experience and qualification working in a large oral surgery department within a major teaching hospital. **[ABSTRACT EDITED]**

#### **Oral surgery II: Part 2. The maxillary sinus (antrum) and oral surgery.**

**Author(s):** Renton, T; Durham, J; Hill, C M

**Source:** British dental journal; Oct 2017; vol. 223 (no. 7); p. 483-493

**Publication Type(s):** Journal Article

**Abstract:** The maxillary sinus is the largest of the four paranasal sinuses and, being anatomically adjacent to the dentate region of the maxilla, is commonly a source of problems - not simply in terms of conditions affecting the sinus but also in establishing an accurate diagnosis. As anyone who has suffered both sinusitis and a dental abscess in the posterior maxilla will tell you, the symptoms are almost indistinguishable. For this reason, a sound understanding of the maxillary sinus is an essential requisite for all dentists.

#### **Oral surgery: The drug holiday.**

**Author(s):** Shiels, D; Goodall, A

**Source:** British dental journal; Oct 2017; vol. 223 (no. 7); p. 464

**Publication Type(s):** Journal Article

#### **Use of oral mucosal cell sheets for accelerated oral surgical wound healing.**

**Author(s):** Roh, Jong-Lyel; Lee, Jaewang; Jang, Hyejin; Kim, Eun Hye; Shin, Daiha

**Source:** Head & neck; Oct 2017

**Publication Type(s):** Journal Article

Available at [Head & neck](#) - from Ovid (Journals @ Ovid)

**Abstract:**BACKGROUND We developed a highly efficient in vitro-engineered mucosa equivalent using completely autologous mucosa and blood and investigated its feasibility and efficacy for oral surgical wound healing. METHODS Small oral mucosa samples were obtained from surgical patients, and keratinocytes and fibroblasts were primarily grown in media without animal products for generating 3D cell sheets. RESULTS Morphological characteristics of the cell sheets were comparable to those of human mucosa, although p63-positive cells were more numerous in cell sheets. In addition, cell sheets were flexible, expandable, and easy to handle or transfer. In further in vivo rat experiments with deep wounding of the buccal mucosa and soft tissues, controls had significantly thinner epithelium and thicker collagen densities than those with cell sheets. CONCLUSION Autologous cell sheets can be engineered in vitro from oral keratinocytes, fibroblasts, and fibrin, and can be used clinically to accelerate healing of oral soft tissue defects.

### **Risk factors for salvage surgery failure in oral cavity squamous cell carcinoma.**

**Author(s):** Matsuura, Danielli; Valim, Tiago Dias; Kulcsar, Marco Aurélio Vamondes;

**Source:** The Laryngoscope; Oct 2017

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVES/HYPOTHESIS Locoregional recurrences of oral cavity squamous cell carcinoma (SCC) may be diagnosed during follow-up of surgically treated patients. Nevertheless, few studies have investigated factors that impact salvage surgery failure and the mortality rates of these patients. The objectives were to identify predictive factors of salvage surgery failure and mortality in patients who undergo surgical treatment for recurrent oral cavity SCC and to compare the overall survival rates of these patients with those of patients who undergo only one surgical treatment. STUDY DESIGN Retrospective cohort study. METHODS Forty-six patients submitted to salvage surgery for local or locoregional recurrence. RESULTS The presence of lymph node metastasis and positive surgical margins at the salvage surgery time were the only independent factors associated with both recurrence rates (hazard ratio [HR]: 5.04 and 2.82, respectively) and mortality (HR: 3.51 and 3.24, respectively). When the overall survival rates of the 199 patients who only underwent one surgical treatment were compared to those of the 46 patients subjected to salvage surgery, a similarity was evident when patients who underwent salvage surgery did not have a new disease recurrence (70.7% vs. 54.7%, respectively;  $P = .158$ ). Likewise, patients with new recurrences after salvage surgery and patients who received palliative treatment for relapsed disease had similar overall survival rates (0.6% vs. 0.0%, respectively;  $P = .475$ ). CONCLUSION The presence of lymph node metastasis at the time of recurrence and positive surgical margins after the salvage surgery were associated with a worse overall survival rate in patients with oral cavity SCC relapse. LEVEL OF EVIDENCE 2b. Laryngoscope, 2017.

### **The application of 3-dimensional printing for preoperative planning in oral and maxillofacial surgery in dogs and cats.**

**Author(s):** Winer, Jenna N; Verstraete, Frank J M; Cissell, Derek D; Lucero, Steven;

**Source:** Veterinary surgery : VS; Oct 2017; vol. 46 (no. 7); p. 942-951

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVE To describe the application of 3-dimensional (3D) printing in advanced oral and maxillofacial surgery (OMFS) and to discuss the benefits of this modality in surgical planning, student and resident training, and client education. STUDY DESIGN Retrospective case series. ANIMALS Client-

owned dogs (n = 28) and cats (n = 4) with 3D printing models of the skulls. **METHODS**The medical records of 32 cases with 3D printing prior to major OMFS were reviewed. **RESULTS**Indications for 3D printing included preoperative planning for mandibular reconstruction after mandibulectomy (n = 12 dogs) or defect nonunion fracture (n = 6 dogs, 2 cats), mapping of ostectomy location for temporomandibular joint ankylosis or pseudoankylosis (n = 4 dogs), assessment of palatal defects (n = 2 dogs, 1 cat), improved understanding of complex anatomy in cases of neoplasia located in challenging locations (n = 2 dogs, 1 cat), and in cases of altered anatomy secondary to trauma (n = 2 dogs). **CONCLUSION**In the authors' experience, 3D printed models serve as excellent tools for OMFS planning and resident training. Furthermore, 3D printed models are a valuable resource to improve clients' understanding of the pet's disorder and the recommended treatment. **CLINICAL RELEVANCE**Three-dimensional printed models should be considered viable tools for surgical planning, resident training, and client education in candidates for complex OMFS.

### **Seven-year review of dental foundation year 2/senior house officer training at the Oral and Maxillofacial Surgery Unit in Oxford.**

**Author(s):** Garg, M; Wong, L; Dhariwal, D

**Source:** The British journal of oral & maxillofacial surgery; Oct 2017; vol. 55 (no. 8); p. 775-779

**Publication Type(s):** Journal Article

**Abstract:**The dental senior house officer (SHO)/dental foundation year 2 (DF2) posts in Oxford have provided hospital-based training for dentists, but in 2013 the Oral and Maxillofacial Surgery (OMFS) Unit withdrew from DF2 training because persistent negative feedback from the dental deanery varied from that obtained internally. We sent questionnaires to a consecutive group of 62 dentists who had worked at the John Radcliffe Hospital, Oxford, between 2006 and 2013 to find out about their experience of the posts. Forty responded (65% response rate). We analysed their expectations, the support provided, their experience of teaching and training, the opportunities available, and free-text feedback about the post and their current posts. They had all found the job helpful, and had gained generic, dental, medical, and surgical skills. The overall mean (SD) score for the post was 8 (2) on a Likert scale of 1-10 (with 10 being excellent). When they completed the questionnaire between December 2013 and July 2014, 18 respondents were working as general dental practitioners and four were training for a career in OMFS. The study showed that work as a dental SHO or DF2 has multiple benefits. We hope that our findings will help to improve OMFS training posts for dental core trainees in Oxford.

### **Intensity-modulated radiotherapy in head and neck cancer - an update for oral and maxillofacial surgeons.**

**Author(s):** Brennan, P A; Bradley, K L; Brands, M

**Source:** The British journal of oral & maxillofacial surgery; Oct 2017; vol. 55 (no. 8); p. 770-774

**Publication Type(s):** Journal Article Review

**Abstract:**Intensity-modulated radiation therapy (IMRT), a relatively new method of delivering radiotherapy, can precisely target a point within a specific tumour and reduce the dose to nearby anatomical structures. This is particularly important in the head and neck where radiotherapy can easily and irreparably damage the salivary glands, spinal cord, and eyes, and where, with increasingly better outcomes and survival, late complications of conventional radiotherapy (including osteoradionecrosis of the cervical spine) can be difficult to manage. IMRT has the potential advantage of reducing side effects including xerostomia and myelopathy of the cervical spinal cord. Several clinical trials have recently been published, and in this update we give an overview of IMRT for oral and maxillofacial surgeons, and discuss what the future may hold for radiotherapy.

**Senior Oral and Maxillofacial Surgery Resident Confidence in Performing Invasive Temporomandibular Joint Procedures.**

**Author(s):** Momin, Mohmedvasim; Miloro, Michael; Mercuri, Louis G; Munaretto, Alexander;

**Source:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons; Oct 2017; vol. 75 (no. 10); p. 2091

**Publication Type(s):** Journal Article

**Abstract:**PURPOSEThe purpose of this study was to evaluate the level of confidence that senior-level oral and maxillofacial surgery (OMS) residents have in the management of temporomandibular joint (TMJ) disorders, determine their exposure to various invasive TMJ procedures during training, and assess their confidence in performing those procedures on completion of residency. **[ABSTRACT EDITED]**

**Evaluation of Oral and Maxillofacial Surgery Residents' Operative Skills: Feasibility and Engagement Study Using SIMPL Software for a Mobile Phone.**

**Author(s):** Kaban, Leonard B; Cappetta, Alyssa; George, Brian C; Lahey, Edward T; Bohnen, Jordan D

**Source:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons; Oct 2017; vol. 75 (no. 10); p. 2041-2047

**Publication Type(s):** Journal Article

**Abstract:**PURPOSEThere are no universally accepted tools to evaluate operative skills of surgical residents in a timely fashion. The purpose of this study was to determine the feasibility of using a smartphone application, SIMPL (System for Improving and Measuring Procedural Learning), developed by a multi-institutional research collaborative, to achieve a high rate of timely operative evaluations and resident communication and to collect performance data. The authors hypothesized that these goals would be achieved because the process is convenient and efficient. **[ABSTRACT EDITED]**

**American Association of Oral and Maxillofacial Surgeons joins project to reduce opioid abuse.**

**Author(s):** Burger, David

**Source:** American Dental Association News; Oct 2017 ; p. 12-12

**Publication Type(s):** Periodical

**Evaluation of a Simulation- Based Oral Surgery Curriculum for Third Year Dental Students (Quantitative and Qualitative Data analysis).**

**Author(s):** Marti, K.C.; Ramaswamy, V.; Springfield, E.; Skouteris, C.A.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Outcomes with Ambulatory Anesthesia Delivered in an Oral and Maxillofacial Surgery Training Program.**

**Author(s):** Christensen, L.; Lyu, J.H.D.; Voegelé, B.; Springer, B.; Barclay, J.D.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Incidence of Clindamycin-Resistance in Head and Neck Infections within Oral and Maxillofacial Surgery.**

**Author(s):** Border, M.; Coke, D.; Lin, S.I.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Psychiatric Symptoms Following Glucocorticoid Administration in Oral Surgery.**

**Author(s):** Tanaka-Sahker, M.; Braun, P.; Yuki, K.; Hing, B.; Chronis, T.; Gaul, L.; Coon, N.; Cramer, E.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Are Oral and Maxillofacial Surgery Residents Prepared Adequately to Pass USMLE Step 1?**

**Author(s):** Momin, M.R.; Miloro, M.; Markiewicz, M.R.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Can a Senior Oral and Maxillofacial Surgery Resident Perform Temporomandibular Joint Surgery during and Following Training?**

**Author(s):** Momin, M.R.; Miloro, M.; Mercuri, L.G.; Markiewicz, M.R.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

## **Bisphosphonate-related osteonecrosis of the jaw**

**Removal of a sequestrum by a patient with medication-related osteonecrosis of the jaw**

**Author(s):** Davies M.; Power A.; Kanatas A.

**Source:** British Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Characteristic multimodal imaging of medication-related osteonecrosis of the jaw: Comparison between oral and parenteral routes of medication administration**

**Author(s):** Ogura I.; Sasaki Y.; Sue M.; Oda T.; Kameta A.

**Source:** Polish Journal of Radiology; 2017; vol. 82 ; p. 551-560

**Publication Type(s):** Article

Available at [Polish Journal of Radiology](#) - from Europe PubMed Central - Open Access

**Abstract:**Background: To assess multimodal imaging features of medication-related osteonecrosis of the jaw (MRONJ) and to analyze the differences between oral and parenteral routes of medication administration. We retrospectively reviewed panoramic radiographs, CT, MRI, and bone scintigraphy of patients with MRONJ. Material/Methods: A retrospective study was conducted in 16 patients with MRONJ who underwent panoramic radiography, CT, MRI, and bone scintigraphy. Statistical analysis for the comparison between routes of medication administration and multimodal imaging features was performed with the Pearson's chi<sup>2</sup> test. Results: The percentage of cases with sequestrum

separation was 25.0% (4/16 cases) on panoramic radiography and 81.3% (13/16 cases) on CT. The percentage of cases with periosteal bone proliferation on CT was 41.7% (5/12 cases) in the oral route of administration vs. 100% (4/4 cases) in the parenteral route of administration ( $p=0.042$ ). The percentage of cases with spread of soft tissue inflammation to buccal and other spaces on CT and MRI was 33.3% (4/12 cases) in the oral route of administration vs. 100% (4/4 cases) in the parenteral route of administration ( $p=0.021$ ). Conclusions: The sequestrum separation on panoramic radiography in patients with MRONJ was unclear in comparison to CT. Furthermore, characteristic CT findings of patients with MRONJ in the parenteral administration group were periosteal bone proliferation and spread of soft tissue inflammation to buccal and other spaces. Copyright © Pol J Radiol.

#### **Preventive Effect of Phosphodiesterase Inhibitor Pentoxifylline Against Medication-Related Osteonecrosis of the Jaw: An Animal Study.**

**Author(s):** Yalcin-Ulker, Gül Merve; Cumbul, Alev; Duygu-Capar, Gonca; Uslu, Ünal; Sencift, Kemal

**Source:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons; Nov 2017; vol. 75 (no. 11); p. 2354-2368

**Publication Type(s):** Journal Article

**Abstract:** PURPOSE The aim of this experimental study was to investigate the prophylactic effect of pentoxifylline (PTX) on medication-related osteonecrosis of the jaw (MRONJ). **[ABSTRACT EDITED]**

#### **Effects of dexamethasone and nimesulide on bisphosphonate-related osteonecrosis of the jaw: An experimental study.**

**Author(s):** Oliveira, Camila Carvalho de; Barros Silva, Paulo Goberlânio de

**Source:** Archives of oral biology; Nov 2017; vol. 83 ; p. 317-326

**Publication Type(s):** Journal Article

**Abstract:** OBJECTIVE To evaluate the effects of dexamethasone (DEX) and nimesulide (NIM) on Bisphosphonate-related Osteonecrosis of the Jaw (BRONJ) in rats. **[ABSTRACT EDITED]**

#### **Correction: Attitudes and perceptions of GPS and community pharmacists towards their role in the prevention of bisphosphonate-related osteonecrosis of the jaw: A qualitative study in the North East of England (BMJ Open (2017) 7 (e016047) DOI: 10.1136/bmjopen-2017-016047)**

**Author(s):** anonymous

**Source:** BMJ Open; Oct 2017; vol. 7 (no. 10)

**Publication Type(s):** Erratum

Available at [BMJ Open](#) - from HighWire - Free Full Text

**Abstract:** The middle initial of author 'Philip Preshaw' is missing from the article. This name should be written 'Philip M Preshaw'. Copyright © Article author(s) (or their employer(s) unless otherwise stated in the text of the article) 2017. All rights reserved.

#### **Intraoral Vacuum-Assisted Closure Therapy-A Pilot Study in Medication-Related Osteonecrosis of the Jaw**

**Author(s):** Laimer J.; Steinmassl O.; Hechenberger M.; Rasse M.; Bruckmoser E.; Pikula R.

**Source:** Journal of Oral and Maxillofacial Surgery; Oct 2017; vol. 75 (no. 10); p. 2154-2161

**Publication Type(s):** Article



**Abstract:** Purpose For approximately 2 decades, vacuum-assisted closure (VAC) therapy has been widely used for the management of complex wounds and soft tissue defects on the external surface of the body. As yet, this technique has not been studied for intraoral wound management. Therefore, this study evaluated the feasibility, safety, and effectiveness of intraoral VAC therapy in patients with medication-related osteonecrosis of the jaw (MRONJ). Patients and Methods After successful construction of an intraoral device providing sufficient airtight sealing, individually manufactured appliances were used in a prospective clinical trial of 3 patients using the VAC therapy system. Results Intraoral VAC therapy showed some success and did not produce serious side effects. Different positive effects, such as formation of new granulation tissue, cessation of pain, and pus suppuration, were found. Conclusion This prospective proof-of-principle study showed that intraoral VAC therapy is feasible and safe. It could play a role in the management of MRONJ and other types of intraoral wounds (eg, osteoradionecrosis, postoperative wound dehiscence, etc). Copyright © 2017 American Association of Oral and Maxillofacial Surgeons

### **Interventions for managing medication-related osteonecrosis of the jaw**

**Author(s):** Beth-Tasdogan N.H.; Zolk O.; Mayer B.; Hussein H.

**Source:** Cochrane Database of Systematic Reviews; Oct 2017; vol. 2017 (no. 10)

**Publication Type(s):** Review

**Abstract:** Background: Medication-related osteonecrosis of the jaw (MRONJ) is a severe adverse reaction experienced by some individuals to certain medicines commonly used in the treatment of cancer and osteoporosis (e.g. bisphosphonates, denosumab and antiangiogenic agents) and involves the progressive destruction of bone in the mandible or maxilla. Depending on the drug, its dosage, and the duration of exposure, the occurrence of this adverse drug reaction may be rare (e.g. following the oral administration of bisphosphonate or denosumab treatments for osteoporosis, or antiangiogenic agent-targeted cancer treatment) or common (e.g. following intravenous bisphosphonate for cancer treatment). MRONJ is associated with significant morbidity, adversely affects quality of life (QoL), and is challenging to treat. Objectives: To assess the effects of interventions versus no treatment, placebo, or an active control for the prophylaxis of MRONJ in people exposed to antiresorptive or antiangiogenic drugs. To assess the effects of non-surgical or surgical interventions (either singly or in combination) versus no treatment, placebo, or an active control for the treatment of people with manifest MRONJ. **[ABSTRACT EDITED]**

### **Selective Percutaneous Controlled Radiofrequency Thermocoagulation of the Gasserian Ganglion to Control Facial Pain Due to Medication-Related Osteonecrosis of the Jaw**

**Author(s):** Taniguchi A.; Fukazawa K.; Hosokawa T.

**Source:** Journal of Palliative Medicine; Oct 2017; vol. 20 (no. 10); p. 1171-1174

**Publication Type(s):** Review

**Abstract:** Background: Medication-related osteonecrosis of the jaw (MRONJ) is an important complication in patients treated with antiresorptive agents such as bisphosphonates and the receptor activator of nuclear factor kappaB ligand inhibitor (denosumab). Treatment of MRONJ is extremely difficult, which makes it a distressing long-term complication. Objectives: We report a case of intractable facial pain due to MRONJ that was successfully controlled with selective percutaneous controlled radiofrequency thermocoagulation of the Gasserian ganglion. Setting: A 68-year-old woman with breast cancer was diagnosed as having MRONJ. She was very distressed because of jaw pain and infections secondary to MRONJ. Her quality of life (QOL) was severely decreased. Since alleviation of the MRONJ could not be expected within the patient's life expectancy, it was decided to investigate the usefulness of selective percutaneous controlled radiofrequency thermocoagulation of the Gasserian ganglion to control the pain. Results: After the

procedure, the anesthesia was obtained in the distribution of the third branch of the trigeminal nerve, and the pain completely disappeared. Although hypoesthesia was provoked as a complication, it was tolerated by the patient and she was very satisfied. Up to the time of death, there was no recurrence of pain or worsening of the MRONJ. Discussion: This procedure is a common technique for treating trigeminal neuralgia. Its effect is immediate and long lasting, although it provokes hypoesthesia in treated division, and it is also suited for cancer patients in terminal stage. This case suggests that the procedure was useful for improving the patient's QOL. © Copyright 2017, Mary Ann Liebert, Inc. 2017.

**The assessment of surgical and non-surgical treatment of stage II medication-related osteonecrosis of the jaw.**

**Author(s):** Eguchi, T; Kanai, I; Basugi, A; Miyata, Y; Inoue, M; Hamada, Y

**Source:** Medicina oral, patologia oral y cirugia bucal; Oct 2017

**Publication Type(s):** Journal Article

Available at [Medicina Oral Patología Oral y Cirugía Bucal](#) - from Europe PubMed Central - Open Access

**Abstract:**BACKGROUND Non-surgical treatment has generally been recommended for stage II medication-related osteonecrosis of the jaw (MRONJ) in preference to surgery. However, non-surgical treatment is not empirically effective. The aim of this study was to evaluate whether surgical or non-surgical treatment leads to better outcomes for stage II MRONJ. MATERIAL AND METHODS In this retrospective study, surgery was performed in a total of 28 patients while 24 patients underwent non-surgical treatment. The outcomes of both treatment approaches after 6 months were evaluated and statistically compared. In addition, risk factors for surgical and non-surgical treatments were assessed for each. RESULTSSurgical treatment in 25 patients (89.3%) resulted in success, with failure in 3 patients (10.7%). Non-surgical treatment was successful for 8 patients (33.3%) and failed in 16 patients (66.7%). There was therefore a significant difference between surgical and non-surgical treatment outcomes ( $P < 0.01$ ). Regarding risk factors, in non-surgical treatment primary diseases, medications, and drug holiday had a significant effect on outcomes ( $P < 0.01$ ). Risk factors for surgical treatment could not be clarified. CONCLUSIONSSurgical treatment is more effective than non-surgical treatment for stage II MRONJ, and drug holiday, primary disease, and medication constitute risk factors in non-surgical treatment.

**Correction: Attitudes and perceptions of GPs and community pharmacists towards their role in the prevention of bisphosphonate-related osteonecrosis of the jaw: a qualitative study in the North East of England.**

**Author(s):**

**Source:** BMJ open; Oct 2017; vol. 7 (no. 10); p. e016047corr1

**Publication Type(s):** Letter Published Erratum

Available at [BMJ Open](#) - from Europe PubMed Central - Open Access

**Insufficient evidence of superiority of any treatment for medication-related osteonecrosis of the jaw.**

**Author(s):** Brignardello-Petersen, Romina

**Source:** Journal of the American Dental Association (1939); Oct 2017; vol. 148 (no. 10); p. e151

**Publication Type(s):** Journal Article

## Maxillofacial

### **Delayed diagnosis in the maxillofacial region: Two case reports**

**Author(s):** Zain-Alabdeen E.H.; Al-Sadhan R.I.; AlSuhaim F.S.; AlMutairi K.M.

**Source:** Journal of Taibah University Medical Sciences; Dec 2017

**Publication Type(s):** Article In Press

**Abstract:** While conventional CT scan has historically been used for maxillofacial bone imaging. The introduction of cone beam CT (CBCT) in the new millennium has revolutionized the use of CT for dental and maxillofacial diagnoses. This paper presents two clinical examples of delayed diagnoses associated with maxillofacial imaging, describes the reasons for the delays and offers potential preventive measures. The first case involves a delay in the diagnosis of non-Hodgkin's lymphoma in a 49-year-old female who was being treated for an odontogenic problem. In the second case, a 9-year-old female who presented with a limited ability to open her mouth was mistakenly diagnosed with muscles spasm. Subsequently, she was found to have an elongation of the right lateral pterygoid plate that interfered with her right mandibular body, which restricted the degree to which she could open her mouth. A thorough clinical examination and accurate radiographic interpretation combined with a complete medical history can minimize these types of diagnostic delays. If the dentist is unable to conclusively reach a diagnosis, the patient should be referred immediately to a specialist who can better manage the specific medical problem. Copyright © 2017 The Authors.

### **Surgical Safety Checklists Are Underutilized in Ambulatory Oral and Maxillofacial Surgery**

**Author(s):** Viswanath A.; Balint A.; Johnson R.E.; Rosenberg M.B.; Oreadi D.

**Source:** Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Purpose: The objective of this study was to determine attitudes toward and the prevalence of using a surgical safety checklist in ambulatory oral and maxillofacial surgery (OMS) practice. Materials and Methods: The authors designed and implemented a cross-sectional study and enrolled a random sample of oral and maxillofacial surgeons. The predictor variable was years removed from residency. The primary outcome was the prevalence of surgical safety checklist usage in ambulatory OMS practice. The secondary outcome was to determine whether surgeons who do not currently use a checklist would be willing to do so if provided with one. Other demographic variables included age, gender, location of practice, type of practice, and number of ambulatory procedures performed per week. Appropriate uni- and bivariate statistics were computed and the level of significance set at .05; 95% confidence intervals also were calculated. Results: The study sample was composed of 120 clinicians. Forty-two percent of respondents reported that they were not using a surgical safety checklist for ambulatory surgery. Ninety-three percent of those respondents not currently using a checklist reported they would consider implementing a surgical safety checklist in their practice if provided with one. In addition, 45.3% of surgeons performing more than 30 procedures a week reported not using a surgical safety checklist. Most respondents (67.9%) who had completed OMS training more than 20 years previously reported not using a checklist in their practice. Conclusion: According to this survey, most practicing oral and maxillofacial surgeons do not currently use surgical safety checklists. Although the response rate was only 12%, the survey does reflect a clear lack of use of checklists among practicing oral and maxillofacial surgeons despite its widespread acceptance in the medical community. Copyright © 2017 American Association of Oral and Maxillofacial Surgeons.

### **Postural Preference and Musculoskeletal Complaints in Oral and Maxillofacial Surgeons**

**Author(s):** Taylor C.A.; Strauss R.A.; Best A.M.

**Source:** Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Purpose: Oral and maxillofacial surgeons traditionally have musculoskeletal pain. The aim of this study was to determine the postural preferences of oral and maxillofacial surgeons and their effect on musculoskeletal pain. Materials and Methods: The authors designed and implemented a cross-sectional study. The association of demographic characteristics with postural preferences and use of loupes was explored. Then, the relation of demographic characteristics, postural preferences, and use of loupes to painful musculoskeletal complaints was analyzed. Contingency analysis was used to compare participants' responses and multiple logistic regression analysis was used to identify relevant predictor variables. Results: The sample was composed of 153 oral and maxillofacial surgeons, of which 32% indicated that they had pain attributable to their practice that lasted longer than 2 weeks. Practitioners reported neck and back pain as being most common. Eighty-four percent of practitioners stood for extractions and placement of implants. Those who stood did so for visibility. Practitioners who sat indicated they did so for orthopedic reasons (P Copyright © 2017 American Association of Oral and Maxillofacial Surgeons.

### **Diffusion-weighted imaging in the oral and maxillofacial region: Usefulness of apparent diffusion coefficient maps and maximum intensity projection for characterization of normal structures and lesions**

**Author(s):** Ogura I.; Sasaki Y.; Sue M.; Oda T.; Kameta A.

**Source:** Polish Journal of Radiology; Oct 2017; vol. 82 ; p. 571-577

**Publication Type(s):** Article

Available at [Polish Journal of Radiology](#) - from Europe PubMed Central - Open Access

**Abstract:** Background: The aim of this study was to investigate diffusion-weighted imaging (DWI) in the oral and maxillofacial region, with a special focus on the usefulness of apparent diffusion coefficient (ADC) maps and maximum intensity projection (MIP) for characterization of normal structures and lesions. Material/Methods: Thirty-five patients who underwent magnetic resonance imaging (MRI) for diagnosis of oral and maxillofacial lesions were included in this prospective study. DWI was performed on a 1.5 T unit, with b factor of 0 and 800 s/mm<sup>2</sup>; moreover, ADC maps were generated. ADC values were measured for normal structures, odontogenic infections, squamous cell carcinomas (SCC), and hemangiomas. Results: As regards the normal structures, the mean ADC value of the cerebrospinal fluid ( $3.65 \pm 0.60 \times 10^{-3}$  mm<sup>2</sup>/s) in the upper neck area was higher than that of the spinal cord ( $0.74 \pm 0.15 \times 10^{-3}$  mm<sup>2</sup>/s, P=0.000), lymph nodes ( $0.87 \pm 0.17 \times 10^{-3}$  mm<sup>2</sup>/s, P=0.000), and Waldeyer's ring ( $0.92 \pm 0.29 \times 10^{-3}$  mm<sup>2</sup>/s, P=0.000). The mean ADC value of hemangiomas ( $1.52 \pm 0.31 \times 10^{-3}$  mm<sup>2</sup>/s) was higher than that of odontogenic infections ( $0.85 \pm 0.36 \times 10^{-3}$  mm<sup>2</sup>/s, P=0.034) and SCC ( $1.38 \pm 0.22 \times 10^{-3}$  mm<sup>2</sup>/s, P=0.840). Furthermore, MIP (DWI) showed the normal structures and lesions in the oral and maxillofacial region in an improved way. Conclusions: DWI, ADC maps, and MIP can be used to characterize and differentiate normal structures and lesions in the oral and maxillofacial region. Copyright © Pol J Radiol.

### **Etiology, diagnosis, and demographic analysis of maxillofacial trauma in elderly persons: A 10-year investigation**

**Author(s):** Possebon A.P.D.R.; Granke G.; Faot F.; Pinto L.D.R.; Leite F.R.M.; Torriani M.A.

**Source:** Journal of Cranio-Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Purpose: The aim of this study was to investigate etiologies and diagnoses of maxillofacial trauma in emergency services in Brazil over a period of 10 years. Additionally, associations among sex, age, accident location, and dependent variables were analyzed. Understanding the epidemiology of trauma and the physiology of aging is important in maintaining health and bettering service for the elderly population. Materials and methods: The primary mode of investigation was analysis of medical records from 2003 to 2013. These researchers recorded the diagnosis and etiology of the trauma, the location where the accident occurred, and the sex and age of the participants. Variable categories were compared using Chi-squared distribution, and logistic regression was used to analyze the associated factors. Results: Of the 677 individuals analyzed, the female sex was predominant (57.61%) and the most prevalent age ranges were between 60 and 69 years (40.18%) and between 70 and 79 years (35.16%). Chi-squared distribution showed that men suffered more fractures (18.47%,  $p = 0.028$ ) and women suffered more contusions (21.54%,  $p = 0.028$ ). With regard to the various etiologies related to the traumas, traffic accidents (17.77%,  $p$  Copyright © 2017 European Association for Cranio-Maxillo-Facial Surgery).

### **Management of cervicofacial infections: A survey of current practice in maxillofacial units in the UK**

**Author(s):** McDonald C.; Henedige A.; Henry A.; Dawoud B.; Kulkarni R.; Gilbert K.; Kyzas P.; Morrison R.; McCaul J.A.

**Source:** British Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Cervicofacial infections are common emergency presentations to maxillofacial departments in the UK, there is no consensus about their management and, in particular, the role of corticosteroids is not clear. Our aim was to find out the current practice of UK maxillofacial surgeons in managing these infections using a multicentre questionnaire study. The questionnaire was designed, piloted, and revised before distribution, and questions were asked to assess preoperative, operative, and postoperative management. It was distributed to maxillofacial surgeons throughout the UK through the Maxillofacial Research Trainee Collaborative (MTReC) network, and at the 2016 British Association of Oral and Maxillofacial Surgeons (BAOMS) Junior Trainees Group conference. A total of 350 questionnaires were distributed to 17 maxillofacial units. Eighty-six questionnaires were distributed at the BAOMS Junior Trainee conference. An overall response rate of 92% ( $n = 324$ ) was achieved. The results showed that there were important differences in reported practice between and within maxillofacial units in the UK in managing these infections. The antibiotic regimens and use of steroids varied widely. Twenty-three per cent of respondents had to wait over 24. hours for access to emergency theatres. However, these results provide no hard evidence for or against the use of corticosteroids in cervicofacial infections. Copyright © 2017 The British Association of Oral and Maxillofacial Surgeons.

### **Senior Oral and Maxillofacial Surgery Resident Confidence in Performing Invasive Temporomandibular Joint Procedures**

**Author(s):** Momin M.; Miloro M.; Munaretto A.; Mercuri L.G.; Markiewicz M.R.

**Source:** Journal of Oral and Maxillofacial Surgery; Oct 2017; vol. 75 (no. 10); p. 2091

**Publication Type(s):** Article

**Abstract:** Purpose The purpose of this study was to evaluate the level of confidence that senior-level oral and maxillofacial surgery (OMS) residents have in the management of temporomandibular joint (TMJ) disorders, determine their exposure to various invasive TMJ procedures during training, and

assess their confidence in performing those procedures on completion of residency. [ABSTRACT EDITED]

### **Styloid Process Fracture Associated With Maxillofacial Trauma: Incidence, Distribution, and Management**

**Author(s):** Tiwary P.; Sahoo N.; Thakral A.; Ranjan U.

**Source:** Journal of Oral and Maxillofacial Surgery; Oct 2017; vol. 75 (no. 10); p. 2177-2182

**Publication Type(s):** Article

**Abstract:** Purpose Fracture of the styloid process of the temporal bone has been infrequently reported. The present study evaluated the incidence, causes, distribution, and management of styloid process fracture in association with other maxillofacial fractures. [ABSTRACT EDITED]

### **Evaluation of Oral and Maxillofacial Surgery Residents' Operative Skills: Feasibility and Engagement Study Using SIMPL Software for a Mobile Phone**

**Author(s):** Kaban L.B.; Cappetta A.; Lahey E.T.; George B.C.; Bohnen J.D.; Troulis M.J.

**Source:** Journal of Oral and Maxillofacial Surgery; Oct 2017; vol. 75 (no. 10); p. 2041-2047

**Publication Type(s):** Article

**Abstract:** Purpose There are no universally accepted tools to evaluate operative skills of surgical residents in a timely fashion. The purpose of this study was to determine the feasibility of using a smartphone application, SIMPL (System for Improving and Measuring Procedural Learning), developed by a multi-institutional research collaborative, to achieve a high rate of timely operative evaluations and resident communication and to collect performance data. The authors hypothesized that these goals would be achieved because the process is convenient and efficient. Materials and Methods This was a prospective feasibility and engagement study using SIMPL to evaluate residents' operative skills. SIMPL requires the attending surgeon to answer 3 multiple-choice questions: 1) What level of help (Zwisch Scale) was required by the trainee? 2) What was the level of performance? 3) How complex was the case? The evaluator also can dictate a narrative. The sample was composed of 3 faculty members and 3 volunteer senior residents. Predictor variables were the surgeons, trainees, and procedures performed. Outcome variables included number and percentage of procedures performed by faculty-and-resident pairs assessed, time required to complete assessments, time lapsed to submission, percentage of assessments with narratives, and residents' response rates. Results From March through June 2016, 151 procedures were performed in the operating room by the faculty-and-resident teams. There were 107 assessments submitted (71%). Resident response (self-assessment) to faculty evaluations was 81%. Recorded time to complete assessments (n = 75 of 107) was shorter than 2 minutes. The time lapsed to submission was shorter than 72 hours (100%). Dictations were submitted for 35 evaluations (33%). Data for the type of help, performance, and complexity of cases were collected for each resident. Conclusions SIMPL facilitates timely intraoperative evaluations of surgical skills, engagement by faculty and residents, and collection of detailed procedural data. Additional prospective trials to assess this tool further are planned. Copyright © 2017 American Association of Oral and Maxillofacial Surgeons

### **Correlation of general and oral health-related quality of life in malocclusion patients treated with a combined orthodontic and maxillofacial surgical approach**

**Author(s):** Tamme J.A.; Ciesielski R.; Fischer-Brandies H.; Koos B.; Rohnen M.; Gasling V.; Wiltfang J.

**Source:** Journal of Cranio-Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Purpose: The aim of the study was to collect information about the oral health-related quality of life (OHRQoL) after combined orthodontic and maxillofacial surgical treatment as well as its influence on health-related quality of life (HRQoL). Materials and methods: The study includes data from a total of 130 subjects, 65 of whom (21 male, 44 female, mean age at baseline: 24 years, mean age at the time of surgery: 26 years) were compared with control subjects matched on the basis of gender and age. The set of questionnaires used consisted of a questionnaire advanced by the authors including 35 general and treatment-specific questions, and the German version of the validated "Orthognathic Quality of Life Questionnaire" (OQLQ) to analyze the specific OHRQoL, and the SF-36 to measure HRQoL. Results: The main reason for treatment was most often a combination of esthetic and functional complaints. In most cases, the treatment results met the expectations of subjects well or very well, particularly in the areas of aesthetics and masticatory function. Postoperative numbness or paresthesia were present in 59% of patients, especially in the chin and lower lip areas. In all, 20% of subjects considered the temporary restriction of mouth opening as very bothersome. A decrease in HRQoL was noted as compared with the control group in the subscales of "role physical" (p Copyright © 2017 European Association for Cranio-Maxillo-Facial Surgery).

### **Risk factors associated with oral and maxillofacial benign tumors: A case-control study**

**Author(s):** Fang H.-J.

**Source:** Cellular and Molecular Biology; 2017; vol. 63 (no. 8); p. 23-26

**Publication Type(s):** Article

**Abstract:** This study aimed to investigate the risk factors for oral and maxillofacial benign tumors (OMFBTs). A total of 138 patients diagnosed with OMFBTs between September 2010 and September 2015 were retrospectively analyzed. Clinical data including demographic characteristics, smoking and drinking status, dietary habit, oral hygiene and tumor related family history were collected and compared with 134 cases of healthy people who visited the hospital for physical examination during the same time. Logistic regression analysis was performed for multivariable regression analysis. OMFBTs was associated with smoking more than 20 cigarettes per day, accumulated cigarette consumption more than 30, accumulated cigarette package consumption more than 1000, present smoking and drinking, passive smoking before 18 years old, initial smoking age more than 20 years old and alcohol consumption more than 50 g/d (P Copyright © 2017 by the C.M.B. Association).

### **Oral and Maxillofacial Anatomy**

**Author(s):** Sadrameli M.; Mupparapu M.

**Source:** Radiologic Clinics of North America; 2017

**Publication Type(s):** Article In Press

**Abstract:** This article deals with identification and descriptions of intraoral and extraoral anatomy of the dental and maxillofacial structures. The anatomic landmarks are highlighted and described based on their radiographic appearance and their clinical significance is provided. Cone beam CT-based images are described in detail using the multiplanar reconstructions. The skull views are depicted via line diagrams in addition to their normal radiographic appearance to make identification of anatomic structures easier for clinicians. The authors cover most of the anatomic structures commonly noted via radiographs and their descriptions. This article serves as a clinician's guide to oral and maxillofacial radiographic anatomy. Copyright © 2017 Elsevier Inc.

### **Is Formal Research Training Associated With Academic Success in Oral and Maxillofacial Surgery?**

**Author(s):** Han J.T.; Egbert M.A.; Dodson T.B.; Susarla S.M.

**Source:** Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Purpose: Pursuing promotion in academic rank and seeking funded research opportunities are core elements of academic practice. Our purpose was to assess whether formal research training influences academic rank or National Institutes of Health (NIH) funding among full-time academic oral and maxillofacial surgeons (OMSs). Materials and Methods: We performed a cross-sectional study of full-time academic OMSs in the United States. The primary predictor variable was completion of formal research training, defined as a research fellowship or advanced non-clinical doctoral research degree (PhD, DMSc, DPH, DPhil, ScD). The outcomes measures were current academic rank and successful acquisition of NIH funding (yes vs no). Other study variables included MD degree, clinical fellowship training, years since training completion, and Hirsch index (H-index), a measure of academic productivity. We computed the descriptive, bivariate, and multiple regression models and set P Copyright © 2017 American Association of Oral and Maxillofacial Surgeons.

### **Management of extensive maxillofacial injury related to a Tyre Blast: A rare case report**

**Author(s):** Rao S.S.; Baliga S.D.; Bhatnagar A.

**Source:** Saudi Dental Journal; 2017

**Publication Type(s):** Article In Press

Available at [The Saudi Dental Journal](#) - from Europe PubMed Central - Open Access

**Abstract:** Background: Severe blast injuries of large tyres are similar to those resulting from explosions with neither thermal nor chemical effects. The literature related to the destructive nature of these blasts is very sparse. This case aims to report the clinical management of a patient involved in large tyre blasts who presented with a severe soft tissue injury, comminuted mandible and associated multiple facial fractures due to a tyre blast injury. Results: Excellent results were obtained following reduction and fixation of fractures with primary suturing, as these types of injuries are prone to infection secondarily. Conclusion: Due to the etiology and severity of injury, these injuries are challenging to operate and are more prone to infection following surgery. These require careful management skills. Copyright © 2017 The Authors.

### **African Americans in Oral and Maxillofacial Surgery: Factors Affecting Career Choice, Satisfaction, and Practice Patterns**

**Author(s):** Criddle T.-R.; Gordon N.C.; Blakey G.; Bell R.B.

**Source:** Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Purpose: There are few data available on the experience of minority surgeons in the field of oral and maxillofacial surgery (OMS). Therefore, the purpose of this study was to 1) explore factors that contribute to African Americans choosing OMS as a career, 2) examine satisfaction among minority oral and maxillofacial surgeons with the residency application and training process, 3) report on practice patterns among minority oral and maxillofacial surgeons, and 4) identify perceived bias for or against minority oral and maxillofacial surgeons in an attempt to aid the efforts of OMS residency organizations to foster diversity. [ABSTRACT EDITED]

### **Juvenile Idiopathic Arthritis Practice Patterns Among Oral and Maxillofacial Surgeons**

**Author(s):** Kinard B.E.; Abramowicz S.

**Source:** Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press



**Abstract:** Purpose: The purpose of this investigation is to assess the current clinical practices by oral and maxillofacial surgeons (OMSs) in the United States regarding diagnosis and treatment of temporomandibular joint (TMJ) involvement in children with juvenile idiopathic arthritis (JIA). Materials and Methods: We implemented a cross-sectional survey of academic OMSs in the United States via an electronic survey. The survey included respondent demographic data, patient volumes, diagnostic methods, and management practices for children with JIA and TMJ involvement. The results of the survey were analyzed using descriptive statistics. Results: The study respondents were composed of 52 surgeons. Most respondents were men (n = 43, 87.8%), were aged 51 to 60 years (n = 20, 39.2%), were in full-time academics (n = 42, 84%), had more than 20 years of experience (n = 26, 50%), and were seeing 1 to 5 patients with JIA per month (n = 21, 46.7%). Most patients were aged 11 to 15 years (n = 22, 61.1%) and were managed with 1 to 2 systemic medications (n = 30, 81.1%). All OMSs reported evaluating TMJ involvement by reviewing patient history, clinical examination, and imaging. The most commonly used imaging modality was panoramic radiographs (n = 24, 63.2%) and magnetic resonance imaging (n = 22, 57.9%). OMSs decided to inject intra-articular medication based on history and symptoms (n = 36, 94.7%). Once in remission, patients were followed up at yearly (n = 12, 36.4%) or 6-month (n = 10, 30.3%) intervals. Conclusions: Our study shows that, in general, there is consensus among US OMSs regarding diagnosis of TMJ involvement in children with JIA. There is less concordance among the respondents regarding treatment. Currently, management of TMJ involvement in children with JIA is mostly based on expert opinions and retrospective studies. This study further highlights the need for randomized clinical trials and multi-institution collaboration to allow for evidence-based diagnosis and treatment. Copyright © 2017 American Association of Oral and Maxillofacial Surgeons.

### **Effect of Religious Belief on Selecting of Graft Materials Used in Oral and Maxillofacial Surgery**

**Author(s):** Gungormus Z.; Gungormus M.

**Source:** Journal of Oral and Maxillofacial Surgery; 2017

**Publication Type(s):** Article In Press

**Abstract:** Purpose: Various graft materials, such as synthetic and biological products, are used routinely in maxillofacial surgery. These materials are usually derived from porcine, bovine, and human tissues; some religious beliefs forbid the dietary use of substances from certain animal sources. The aim of this study was to evaluate the effect of religious belief on selecting different graft types used in maxillofacial surgery. **[ABSTRACT EDITED]**

### **Simulation of three surgical techniques combined with two different bone-borne forces for surgically assisted rapid palatal expansion of the maxillofacial complex: a finite element analysis**

**Author(s):** Mohlhenrich S.C.; Fritz U.; Modabber A.; Kniha K.; Peters F.; Steiner T.; Holzle F.; Raith S.

**Source:** International Journal of Oral and Maxillofacial Surgery; Oct 2017; vol. 46 (no. 10); p. 1306-1314

**Publication Type(s):** Article

**Abstract:** Surgically assisted rapid palatal expansion (SARPE) is a common treatment to correct transverse maxillary deficiencies. Finite element analysis was simulated for six designs of SARPE based on a computed tomography scan of a human skull: median osteotomy with palatal (type A) or alveolar ridge (type B) bone-borne force, additional lateral osteotomy with palatal (type C) or alveolar ridge (type D) bone-borne force, and additional pterygomaxillary separation with palatal (type E) or alveolar ridge (type F) bone-borne force. The transverse expansion was about 1.0 mm. The distribution of von Mises stress and the displacement were evaluated. The largest stress distribution was after types A and B, followed by types C and D, and finally types E and F. Displacement increased simultaneously. Palatal bone-borne forces (types A, C, and E) led to higher stress distributions in the midface and maxilla, but to a more parallel expansion compared with

alveolar ridge-borne forces (types B, D, and F). The largest bony displacements at the midpalatal suture were anterior in all models. Increased weakening of the bony pillar of the facial skeleton and the use of palatal bone-borne forces leads to a decrease in stress distribution in the midface and to a more parallel transverse expansion of the maxilla. Copyright © 2017 International Association of Oral and Maxillofacial Surgeons

### **Junctional Rhythm Preoperatively and During General Anesthesia for Oral and Maxillofacial Surgery.**

**Author(s):** Kishimoto, Naotaka; Kinoshita, Ikue; Momota, Yoshihiro

**Source:** Anesthesia progress; 2017; vol. 64 (no. 3); p. 165-167

**Publication Type(s):** Journal Article

Available at [Anesthesia Progress](#) - from EBSCO (MEDLINE Complete)

**Abstract:**We report a case of junctional rhythm that occurred both preoperatively and later during a portion of general anesthesia. A 19-year-old woman was scheduled to undergo bilateral sagittal split ramus osteotomy after being diagnosed with a jaw deformity. Preoperative electrocardiography (ECG) revealed a junctional rhythm with a slow heart rate (HR). At 90 minutes after anesthesia induction, local anesthesia with 10 mL of 1% lidocaine and 1:100,000 adrenaline was administered. A junctional rhythm appeared 15 minutes after the local anesthesia. We believe that the atrioventricular nodal pacemaker cells accelerated because of the increased sympathetic activity due to the adrenaline. On the preoperative ECG, the junctional rhythm with slow HR appeared as an escaped beat caused by slowing of the primary pacemaker. Therefore, we think that the preoperative junctional rhythm and the junctional rhythm that appeared during general anesthesia were due to different causes. Understanding the cause of a junctional rhythm could lead to more appropriate treatment. We therefore believe that identifying the cause of the junctional rhythm is important in anesthetic management.

### **Maxillofacial Injuries in Women: A Retrospective Study of 10 Years.**

**Author(s):** Ramisetty, Sudhir; Gaddipati, Rajasekhar; Vura, Nandagopal; Pokala, Satheesh; Kapse, Sheetal

**Source:** Journal of maxillofacial and oral surgery; Dec 2017; vol. 16 (no. 4); p. 438-444

**Publication Type(s):** Journal Article

Available at [Journal of Maxillofacial and Oral Surgery](#) - from Europe PubMed Central - Open Access

**Abstract:**INTRODUCTIONDiversities exists in incidence, etiology and epidemiology of facial fractures among male and female individuals due to various reasons. Many of the epidemiological studies published during the millennium have shown male predilection. This study was carried to evaluate the etiology, patterns and distribution of facial fractures among different age groups in women.MATERIALS AND METHODSThis Retrospective epidemiological study dealt with a total of 302 women with 422 fractures in maxillofacial region during a period of June 1st 2005 to May 31st 2015 at Mamata Dental College and Hospital, Khammam, Telangana, India.RESULTSMean age of incidence was 31.58 years, mandibular fractures were highest (44.07 %) followed by zygomaticomaxillary complex injuries (ZMC) (20.37 %). Road traffic accidents (RTA) injuries (53.7 %) were highest, followed by assault (23.9 %) and other causes. Highest number (33.8 %) of fractures were sustained in the 3rd decade and least (0.7 %) in the 8th decade of life. Among soft tissue injuries most commonly seen were lacerations (51 %).CONCLUSIONResults of this study suggest that there is an increase in the number of maxillofacial injuries in women, representing changes in the society, exposing women to similar conditions like men and increased number of working women. This study helps to identify trauma burden, assess the awareness of current preventive measures, women

protection laws, for instituting new guidelines for prevention and planning health care services for women.

#### **Controversies in Oral and Maxillofacial Surgery.**

**Author(s):** Vega, Luis G; Meara, Daniel J

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. ix

**Publication Type(s):** Editorial

#### **Controversies in Anesthesia for Oral and Maxillofacial Surgery.**

**Author(s):** King, Brett J; Levine, Adam

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. 515-523

**Publication Type(s):** Journal Article Review

**Abstract:**The future of office-based anesthesia for oral and maxillofacial surgery is at risk. Oral and maxillofacial surgeons have been on the forefront of providing safe and effective outpatient anesthesia for decades. Recent changes in Medicare policies have had, and will continue to have, a significant effect on the training of oral and maxillofacial surgery residents regarding anesthesia. The outcome of these changes can have a major effect on the specialty of oral and maxillofacial surgery and a cornerstone of the profession.

#### **Controversies in the Management of Oral and Maxillofacial Infections.**

**Author(s):** Taub, Daniel; Yampolsky, Andrew; Diecidue, Robert; Gold, Lionel

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. 465-473

**Publication Type(s):** Journal Article Review

**Abstract:**The management and treatment of odontogenic infection, and its frequent extension into the head and neck, remains an important section of oral and maxillofacial surgical practice. This area of maxillofacial expertise is widely recognized by the medical community and an essential component to the hospital referral system. Although the general principles of infection management have not changed, there have been modifications in the timing of treatment sequences and treatment techniques. These modifications are influenced by the development of diagnostic methods and advances in bacterial genetics and antibiotic usage. This article reviews treatment considerations and controversies surrounding this subject.

#### **Controversies in Microvascular Maxillofacial Reconstruction.**

**Author(s):** Fagin, Adam P; Petrisor, Daniel

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. 415-424

**Publication Type(s):** Journal Article Review

**Abstract:**The effectiveness and reliability of microvascular reconstruction for large defects in the head and neck is no longer disputed. However, many controversies still persist in the ideal perioperative management of patients undergoing free tissue transfer. The optimal method of postoperative monitoring, the use of vasoconstrictors in the perioperative period, and the use of anticoagulants in the postoperative period remain topics of debate. This article offers recommendations on each of these controversies based on a review of the current literature.

#### **Controversies in Traditional Oral and Maxillofacial Reconstruction.**

**Author(s):** Vorrasi, John S; Kolokythas, Antonia

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. 401-413

**Publication Type(s):** Journal Article Review

**Abstract:**Traditional reconstruction of the head and neck and significantly evolved over the last 20 to 30 years with advances in microvascular surgery, biologic materials such as bone morphogenic protein, and dental implant predictability. Earlier and more definitive reconstruction can now be achieved with combining therapies, allowing patients immediate restoration of function and improved cosmetics. Antiresorptive medications, such as Denosumab and bisphosphonates, have complicated bony reconstruction treatments with altered biology and less-predictable results. Virtual surgical planning is a major advancement for reconstruction pretreatment planning and designing of intraoperative tools to expedite the operation and achieve more predictable results.

#### **Controversies in Maxillofacial Trauma.**

**Author(s):** Meara, Daniel J; Jones, Lewis C

**Source:** Oral and maxillofacial surgery clinics of North America; Nov 2017; vol. 29 (no. 4); p. 391-399

**Publication Type(s):** Journal Article Review

**Abstract:**Craniomaxillofacial trauma management has continued to improve and evolve as a result of advances in technology and scientific inquiry. Controversies exist where there is little evidence-based literature to guide treatment in frontal sinus management, rigid versus absorbable fixation, open versus closed treatment of mandibular condyle fractures, extraction of teeth in the line of fracture, optimal timing for repair of mandible fractures, antibiotic use for facial wounds and fractures, and reconstructive materials in orbital fracture reconstruction. This article reviews current literature to resolve some of the controversies, to improve patient care by reducing variability and uncertainty in the optimal management of facial trauma patients.

#### **Value in Oral and Maxillofacial Surgery: A Systematic Review of Economic Analyses.**

**Author(s):** Geisler, Benjamin P; Ji, Yisi D; Peacock, Zachary S

**Source:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons; Nov 2017; vol. 75 (no. 11); p. 2287-2303

**Publication Type(s):** Journal Article

**Abstract:**PURPOSEThe purpose of this study is to describe the state of economic analyses in the field of oral and maxillofacial surgery (OMS).[ABSTRACT EDITED]

#### **Accessory Mental Foramen and Maxillofacial Surgery.**

**Author(s):** Rahpeyma, Amin; Khajehahmadi, Saeedeh

**Source:** The Journal of craniofacial surgery; Oct 2017

**Publication Type(s):** Journal Article

**PubMedID:** 29077686

**Abstract:**Accessory mental foramina should be considered in surgical procedures performed in mandibular body and symphysis. Location and content of these foramina has significant impact on the result of surgery. Lip numbness is the catastrophic result if these foramina are violated while their content is nerves that carry sensory inputs from lower lip. Examples of interferences with dental implant, orthognathic, and periapical surgeries are presented and it is discussed in which conditions they complicate oral surgical procedures.

### **Instrumentation in Maxillofacial Surgery: Few Practical Tips.**

**Author(s):** Shrotriya, Raghav; Puri, Vinita

**Source:** Archives of plastic surgery; Oct 2017

**Publication Type(s):** Journal Article

Available at [Archives of plastic surgery](#) - from Europe PubMed Central - Open Access

**Abstract:**When a newly inducted plastic surgery resident embarks on maxillofacial surgery, with drills, screws, plates and burrs, it seems like a new domain altogether. As a new resident, it is truly fascinating as to how such wide variety of bony work is done without scarring over the face. Here we discuss a few practical tips which the author has learned during his surgical sojourn in residency. It is hoped that the readers who are new to maxillofacial surgery, shall find these useful.

### **Maxillofacial surgery: the impact of the Great War on both sides of the trenches.**

**Author(s):** Stathopoulos, Panagiotis

**Source:** Oral and maxillofacial surgery; Oct 2017

**Publication Type(s):** Journal Article

**Abstract:**"War is the father and King of all", Heraclitus the obscure philosopher, declares. It certainly appears that the specialty of maxillofacial surgery was greatly advanced during WWI. This article focuses on the circumstances under which the specialty was developed, the significant events and the important figures that played a leading role in the advancement of a new fascinating surgical specialty. The literature leaves no doubt that trench warfare despite its devastating outcome for humanity has forged the shape of modern maxillofacial surgery.

### **Maxillofacial prostheses challenges in resource constrained regions.**

**Author(s):** Tetteh, Sophia; Bibb, Richard J; Martin, Simon J

**Source:** Disability and rehabilitation; Oct 2017 ; p. 1-9

**Publication Type(s):** Journal Article

**Abstract:**BACKGROUNDThis study reviewed the current state of maxillofacial rehabilitation in resource-limited nations.METHODA rigorous literature review was undertaken using several technical and clinical databases using a variety of key words pertinent to maxillofacial prosthetic rehabilitation and resource-limited areas. In addition, interviews were conducted with researchers, clinicians and prosthetists that had direct experience of volunteering or working in resource-limited countries.RESULTSResults from the review and interviews suggest rehabilitating patients in resource-limited countries remains challenging and efforts to improve the situation requires a multifactorial approach.CONCLUSIONIn conclusion, public health awareness programmes to reduce the causation of injuries and bespoke maxillofacial prosthetics training programmes to suit these countries, as opposed to attempting to replicate Western training programmes. It is also possible that usage of locally sourced and cheaper materials and the use of low-cost technologies could greatly improve maxillofacial rehabilitation efforts in these localities. Implications for Rehabilitation More information and support needs to be provided to maxillofacial defect/injuries patients and to their families or guardians in a culturally sensitive manner by governments. The health needs, economic and psychological needs of the patients need to be taken into account during the rehabilitation process by clinicians and healthcare organizations. The possibility of developing training programs to suit these resource limited countries and not necessarily follow conventional fabrication methods must be looked into further by educational entities.

### **The provision of surgical tracheostomies by maxillofacial surgeons in the UK: time for a dedicated tracheostomy team?**

**Author(s):** Chohan, P; Elledge, R; Viridi, M K; Walton, G M

**Source:** Annals of the Royal College of Surgeons of England; Oct 2017 ; p. 1-4

**Publication Type(s):** Journal Article

Available at [The Annals of The Royal College of Surgeons of England](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Surgical tracheostomy is a commonly provided service by surgical teams for patients in intensive care where percutaneous dilatational tracheostomy is contraindicated. A number of factors may interfere with its provision on shared emergency operating lists, potentially prolonging the stay in intensive care. We undertook a two-part project to examine the factors that might delay provision of surgical tracheostomy in the intensive care unit. The first part was a prospective audit of practice within the University Hospital Coventry. This was followed by a telephone survey of oral and maxillofacial surgery units throughout the UK. In the intensive care unit at University Hospital Coventry, of 39 referrals, 21 (53.8%) were delayed beyond 24 hours. There was a mean (standard deviation) time to delay of 2.2 days (0.9 days) and the most common cause of delay was surgeon decision, accounting for 13 (61.9%) delays. From a telephone survey of 140 units nationwide, 40 (28.4%) were regularly involved in the provision of surgical tracheostomies for intensive care and 17 (42.5%) experienced delays beyond 24 hours, owing to a combination of theatre availability (76.5%) and surgeon availability (47.1%). There is case for having a dedicated tracheostomy team and provisional theatre slot to optimise patient outcomes and reduce delays. We aim to implement such a move within our unit and audit the outcomes prospectively following this change.

### **Maxillofacial Mazabraud's syndrome: A case report & review.**

**Author(s):** Domancic, S; Pezoa, N; Fernandez-Toro, M; Ortega-Pinto, A; Donoso-Hofer, F

**Source:** Journal of stomatology, oral and maxillofacial surgery; Oct 2017

**Publication Type(s):** Journal Article

**Abstract:** Mazabraud's syndrome is characterized by myxomas of intramuscular type present in association with fibrous dysplasia. Up to this day, approximately 80 cases of Mazabraud's syndrome have been reported, although in the head and neck territory intramuscular myxoma reports in association with fibrous dysplasia of the bone are very scarce. An unusual case of Mazabraud's syndrome in a 63 years old female displaying fibrous dysplasia of the mandible and soft tissue myxoma in the edentulous alveolar ridge in the molar area is reported. After four years of follow-up, the clinical, imagenological and microscopical findings that led to the diagnosis and treatment are discussed. This report exemplifies the diagnostic and treatment challenge of this rare disease and enhances our clinical knowledge due to its long follow-up, highlighting the need of understanding better its behavior in order to establish proper guidelines for its treatment.

### **Comprehensive analysis of 225 Castleman's diseases in the oral maxillofacial and neck region: a rare disease revisited.**

**Author(s):** He, Xiaotong; Wang, Qiong; Wu, Yaping; Hu, Jiaan; Wang, Dongmiao; Qi, Bin; Zhang, Wei;

**Source:** Clinical oral investigations; Oct 2017

**Publication Type(s):** Journal Article

**Abstract:** OBJECTIVE The aim of the present study was to comprehensively summarize the epidemiological, clinicopathological characteristics, treatments as well as prognosis of Castleman's disease (CD) identified in the oral maxillofacial and neck region. **[ABSTRACT EDITED]**

**The application of 3-dimensional printing for preoperative planning in oral and maxillofacial surgery in dogs and cats.**

**Author(s):** Winer, Jenna N; Verstraete, Frank J M; Cissell, Derek D; Lucero, Steven; Athanasiou, Kyriacos A; Arzi, Boaz

**Source:** Veterinary surgery : VS; Oct 2017; vol. 46 (no. 7); p. 942-951

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVE To describe the application of 3-dimensional (3D) printing in advanced oral and maxillofacial surgery (OMFS) and to discuss the benefits of this modality in surgical planning, student and resident training, and client education. STUDY DESIGN Retrospective case series. ANIMALS Client-owned dogs (n = 28) and cats (n = 4) with 3D printing models of the skulls. METHODS The medical records of 32 cases with 3D printing prior to major OMFS were reviewed. RESULTS Indications for 3D printing included preoperative planning for mandibular reconstruction after mandibulectomy (n = 12 dogs) or defect nonunion fracture (n = 6 dogs, 2 cats), mapping of ostectomy location for temporomandibular joint ankylosis or pseudoankylosis (n = 4 dogs), assessment of palatal defects (n = 2 dogs, 1 cat), improved understanding of complex anatomy in cases of neoplasia located in challenging locations (n = 2 dogs, 1 cat), and in cases of altered anatomy secondary to trauma (n = 2 dogs). CONCLUSION In the authors' experience, 3D printed models serve as excellent tools for OMFS planning and resident training. Furthermore, 3D printed models are a valuable resource to improve clients' understanding of the pet's disorder and the recommended treatment. CLINICAL RELEVANCE Three-dimensional printed models should be considered viable tools for surgical planning, resident training, and client education in candidates for complex OMFS.

**Maxillofacial prosthetics training and practice profiles in the United States.**

**Author(s):** Sheets, James L; Yuan, Judy Chia-Chun; Sukotjo, Cortino; Davis, Betsy K; Wee, Alvin G

**Source:** The Journal of prosthetic dentistry; Oct 2017; vol. 118 (no. 4); p. 540-545

**Publication Type(s):** Journal Article

**Abstract:**STATEMENT OF PROBLEM The motivation of maxillofacial prosthodontists to go into fellowship training and specific procedures in maxillofacial prosthetics practice once they have completed training has not been previously evaluated. PURPOSE The purpose of this study was to survey maxillofacial prosthodontists in the United States to investigate their reasons for pursuing maxillofacial prosthetic training and their practice profiles. [ABSTRACT EDITED]

**Seven-year review of dental foundation year 2/senior house officer training at the Oral and Maxillofacial Surgery Unit in Oxford.**

**Author(s):** Garg, M; Wong, L; Dhariwal, D

**Source:** The British journal of oral & maxillofacial surgery; Oct 2017; vol. 55 (no. 8); p. 775-779

**Publication Type(s):** Journal Article

**Abstract:**The dental senior house officer (SHO)/dental foundation year 2 (DF2) posts in Oxford have provided hospital-based training for dentists, but in 2013 the Oral and Maxillofacial Surgery (OMFS) Unit withdrew from DF2 training because persistent negative feedback from the dental deanery varied from that obtained internally. We sent questionnaires to a consecutive group of 62 dentists who had worked at the John Radcliffe Hospital, Oxford, between 2006 and 2013 to find out about their experience of the posts. Forty responded (65% response rate). We analysed their expectations, the support provided, their experience of teaching and training, the opportunities available, and free-text feedback about the post and their current posts. They had all found the job helpful, and

had gained generic, dental, medical, and surgical skills. The overall mean (SD) score for the post was 8 (2) on a Likert scale of 1-10 (with 10 being excellent). When they completed the questionnaire between December 2013 and July 2014, 18 respondents were working as general dental practitioners and four were training for a career in OMFS. The study showed that work as a dental SHO or DF2 has multiple benefits. We hope that our findings will help to improve OMFS training posts for dental core trainees in Oxford.

### **Intensity-modulated radiotherapy in head and neck cancer - an update for oral and maxillofacial surgeons.**

**Author(s):** Brennan, P A; Bradley, K L; Brands, M

**Source:** The British journal of oral & maxillofacial surgery; Oct 2017; vol. 55 (no. 8); p. 770-774

**Publication Type(s):** Journal Article Review

**Abstract:**Intensity-modulated radiation therapy (IMRT), a relatively new method of delivering radiotherapy, can precisely target a point within a specific tumour and reduce the dose to nearby anatomical structures. This is particularly important in the head and neck where radiotherapy can easily and irreparably damage the salivary glands, spinal cord, and eyes, and where, with increasingly better outcomes and survival, late complications of conventional radiotherapy (including osteoradionecrosis of the cervical spine) can be difficult to manage. IMRT has the potential advantage of reducing side effects including xerostomia and myelopathy of the cervical spinal cord. Several clinical trials have recently been published, and in this update we give an overview of IMRT for oral and maxillofacial surgeons, and discuss what the future may hold for radiotherapy.

### **Retention systems for extraoral maxillofacial prosthetic implants: a critical review.**

**Author(s):** Cobain, M V; Coto, N P; Crivello Junior, O; Lemos, J B D; Vieira, L M; Pimentel, M L;

**Source:** The British journal of oral & maxillofacial surgery; Oct 2017; vol. 55 (no. 8); p. 763-769

**Publication Type(s):** Journal Article Review

**Abstract:**We describe the techniques available for retention of implant-supported prostheses: bar-clips, O-rings, and magnets. We present reported preferences and, although this is limited by the heterogeneity of methods used and patients studied, we hope we have identified the best retention systems for maxillofacial prosthetic implants. If practitioners know the advantages and disadvantages of each system, they can choose the most natural and comfortable prosthesis. We searched the PubMed and Scopus databases, and restricted our search to papers published 2001-13. MeSH terms used were Maxillofacial prosthesis and Craniofacial prosthesis OR Craniofacial prostheses. We found a total of 2630 papers, and after duplicates had been removed we analysed the rest and found 25 papers for review. Of these, 12 were excluded because they were case reports or non-systematic reviews. Of the remaining 13, 10 described group analyses and seemed appropriate to find practitioner's choices, as cited in the abstract (n=1611 prostheses). Three papers did not mention the type of prosthetic connection used, so were excluded. The most popular choices for different conditions were analysed, though the sites and retention systems were not specified in all 10 papers. The bar-clip system was the most used in auricular (6/10 papers) and nasal prostheses (4/10). For the orbital region, 6/10 favoured magnets. Non-osseointegrated mechanical or adhesive retention techniques are the least expensive and have no contraindications. When osseointegrated implants are possible, each facial region has a favoured system. The choice of system is influenced by two factors: standard practice and the abilities of the maxillofacial surgeon and maxillofacial prosthodontist.



**Biodegradable plates may require more surgical removal than titanium plates in patients undergoing maxillofacial surgery.**

**Author(s):** Brignardello-Petersen, Romina

**Source:** Journal of the American Dental Association (1939); Oct 2017; vol. 148 (no. 10); p. e137

**Publication Type(s):** Journal Article

**Ewing's Sarcoma of the maxillofacial region: A case report.**

**Author(s):** Rattana-Arpha, P; Dhanuthai, K; Sutthiprapaporn, P; Dhanesuan, K

**Source:** Journal of stomatology, oral and maxillofacial surgery; Oct 2017; vol. 118 (no. 5); p. 316-319

**Publication Type(s):** Journal Article

**Abstract:**Ewing's sarcoma (ES) is an uncommon malignancy, especially in the head and neck region, with only 30 cases reported so far. The mandible is more affected than the maxilla. It represents the most frequent small round cell bone tumor of childhood and adolescence. This report presented a case of 19-year-old male with primary ES in the right side of maxilla, maxillary sinus, zygoma and temporal fossa areas. The clinical, radiographic, histopathologic features and main histopathologic differential diagnosis of ES were reviewed to avoid potential diagnostic pitfalls.

**Effects of the Addition of Titanium Dioxide and Silaned Silica Nanoparticles on the Mechanical Properties of Maxillofacial Silicones.**

**Author(s):** Cevik, Pinar; Eraslan, Oguz

**Source:** Journal of prosthodontics : official journal of the American College of Prosthodontists; Oct 2017; vol. 26 (no. 7); p. 611-615

**Publication Type(s):** Journal Article

**Abstract:**PURPOSESilicone-based elastomeric materials are commonly used to fabricate maxillofacial prostheses. The aim of this study was to evaluate the effect of different types of silica and nanosized titanium dioxide addition on the mechanical properties of two RTV silicone elastomers.MATERIALS AND METHODSA-2000 and A-2006 silicone elastomers were used, and each was divided into four subgroups (n = 5). The first group was the control without additives. Other groups were titanium dioxide, fumed silica, and silaned silica. Each specimen was prepared in compliance with the manufacturer's instructions for the tensile strength, percent elongation, tear resistance, and the hardness tests according to ISO and ASTM standards. A factorial ANOVA with pairwise interaction indicated that the pattern for all four outcomes of the materials was different for A-2000 and A-2006 (p 0.05) for A-2000. The fumed silica and TiO<sub>2</sub> groups had significantly higher tear strength than the control group for A-2006. The fumed silica and the hydrophobic silica groups had significantly higher percent elongation than the control group (p < 0.05) for A-2000. The TiO<sub>2</sub> group had the lowest percent elongation for A-2006.CONCLUSIONSResults in this in vitro study may clarify future studies about the effect of different additives on the physical and mechanical properties of maxillofacial elastomers. There is a great interest in the effect of a new-generation hydrophobic silica incorporation into A-2000 silicone as well as the effect of fumed hydrophilic silica incorporation into A-2006 silicone. Future research should be supported with more in vitro trials in different percentages of such additives used in this study.

**Association of traumatic head injuries and maxillofacial fractures: A retrospective study.**

**Author(s):** Abosadegh, Maher M; Rahman, Shaifulizan Ab; Saddki, Norkhafizah

**Source:** Dental traumatology : official publication of International Association for Dental Traumatology; Oct 2017; vol. 33 (no. 5); p. 369-374

**Publication Type(s):** Journal Article

**Abstract:**BACKGROUND/AIMSThe association of traumatic head injury (THI) with maxillofacial fractures (MFF) is a major health concern worldwide. In spite of the close anatomical proximity of maxillofacial bones to the cranium, the association of THI with MFF is controversial. The aim of this study was to assess the association between THI and MFF. Other factors associated with THI in patients with MFF were also investigated. **[ABSTRACT EDITED]**

**Epidemiological study of facial fractures at the Oral and Maxillofacial Surgery Service, Santa Casa de Misericórdia Hospital Complex, Porto Alegre - RS - Brazil.**

**Author(s):** Zamboni, Rodrigo Andrighetti; Wagner, João Carlos Birnfeld; Volkweis, Maurício Roth

**Source:** Revista do Colegio Brasileiro de Cirurgioes; 2017; vol. 44 (no. 5); p. 491-497

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVESto investigate the incidence and etiology of face trauma with diagnosis of facial fracture treated at the Buccomaxillofacial Surgery and Traumatology Service of the Santa Casa de Misericórdia Hospital Complex in Porto Alegre.METHODSwe conducted a cross-sectional, retrospective epidemiological study of 134 trauma victims with 153 facial fractures.RESULTSthe male gender was the most affected (86.6%) and the incidence was higher in the age group from 21 to 30 years. The main etiology was assault (38.8%), followed by motor vehicle accidents (14.2%), motorcycle accidents (13.4%), falls (9%), road accidents (6.7%), sports accidents (5.2%), work accidents (5.2%), firearm injuries (4.5%) and cycling accidents (3%). The most frequent fractures were those of the zygomatic complex (44.5%), followed by fractures of the mandible (42.5%), maxillary bone (5.2%), nasal bones (4.5%) and zygomatic arch (3.3%).CONCLUSIONthe fractures of the zygomatic complex and the mandible were the ones with the highest incidence in the facial traumas, having physical assaults as their main cause.

**American Association of Oral and Maxillofacial Surgeons joins project to reduce opioid abuse.**

**Author(s):** Burger, David

**Source:** American Dental Association News; Oct 2017 ; p. 12-12

**Publication Type(s):** Periodical

**Blinding Oral and Maxillofacial Admissions Committee Members to NBME CBSE Score Does Not Affect Decision to Interview or Applicant Rankings.**

**Author(s):** Mirchel, R.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Application of Virtual Surgical Planning to Staged Management of Self-Inflicted Gunshot Wounds to the Maxillofacial Skeleton: The Oregon Protocol.**

**Author(s):** Khatib, B.N.; Cuddy, K.K.; Gelesko, S.L.; Amundson, M.; Cheng, A.; Patel, A.A.; Dierks, E.J.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Outcomes with Ambulatory Anesthesia Delivered in an Oral and Maxillofacial Surgery Training Program.**

**Author(s):** Christensen, L.; Lyu, J.H.D.; Voegele, B.; Springer, B.; Barclay, J.D.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Increased Incidence of Clindamycin-Resistance in Head and Neck Infections within Oral and Maxillofacial Surgery.**

**Author(s):** Border, M.; Coke, D.; Lin, S.I.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Are Oral and Maxillofacial Surgery Residents Prepared Adequately to Pass USMLE Step 1?**

**Author(s):** Momin, M.R.; Miloro, M.; Markiewicz, M.R.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Can a Senior Oral and Maxillofacial Surgery Resident Perform Temporomandibular Joint Surgery during and Following Training?**

**Author(s):** Momin, M.R.; Miloro, M.; Mercuri, L.G.; Markiewicz, M.R.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Maxillofacial Gunshot Wound & Delayed Psuedoaneurysm: Recognition & Endovascular Intervention.**

**Author(s):** McKinney, R.A.

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

**Maxillofacial Oncology and Reconstructive Surgery (MORS).**

**Author(s):**

**Source:** Journal of Oral & Maxillofacial Surgery (02782391); Oct 2017; vol. 75

**Publication Type(s):** Academic Journal

## Cleft lip and palate

**Reliability of the SWAG-The standardized way to assess grafts method for alveolar bone grafting in patients with cleft lip and palate**

**Author(s):** Russell K.; Long R.E.; Daskalogiannakis J.; Mercado A.; Hathaway R.; Semb G.; Shaw W.

**Source:** Cleft Palate-Craniofacial Journal; Nov 2017; vol. 54 (no. 6); p. 680-686

**Publication Type(s):** Conference Paper

**Abstract:**Objective: The objective of this study was to test a new method, a Standardized Way to Assess Grafts (SWAG), to rate alveolar bone graft (ABG) outcomes for patients with cleft lip and palate. Design: This was a retrospective comparison using the SWAG scale. Setting: This study took

place in four cleft palate centers with different treatment protocols. Methods: A total of 160 maxillary occlusal radiographs taken 3 to 18 months post-ABG for sequentially treated patients with cleft lip and palate were assessed using the SWAG scale. Radiographs were scanned, standardized, blinded, and rated by 6 calibrated orthodontists to assess vertical thirds, bony root coverage, and complete bony fill. All radiographs were rated twice, 24 hours apart, by the same raters. Main Outcomes: Intra- and interrater reliabilities were assessed. Results: Intrarater reliability was good to very good (.760; .652-.834), and interrater reliability was moderate to good (.606; .569-.681), comparable to previously published methods. Conclusions: Rater reliabilities were shown to be comparable to or better than existing methods. The SWAG method was validated for ABG assessments in the mixed and permanent dentitions based on reliabilities in an intercenter outcome comparison. © Copyright 2017 American Cleft Palate-Craniofacial Association.

**Effects of pre-surgical nasoalveolar moulding on maxillary arch and nasal form in unilateral cleft lip and palate before lip surgery.**

**Author(s):** Fuchigami, T; Kimura, N; Kibe, T; Tezuka, M; Amir, M S; Suga, H; Takemoto, Y; Hashiguchi, M; Maeda-Iino, A; Nakamura, N

**Source:** Orthodontics & craniofacial research; Nov 2017; vol. 20 (no. 4); p. 209-215

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVE To investigate the effects of pre-surgical nasoalveolar moulding (PNAM) on the maxillary arch and nasal form in patients with unilateral cleft lip and palate (UCLP). SETTING AND SAMPLE POPULATION This is a retrospective case series study. The subjects were infants with complete UCLP who were treated with Pnam (n = 18) at Kagoshima University Medical and Dental Hospital (Japan) between 2006 and 2013. [ABSTRACT EDITED]

**Longitudinal dental maturation of children with complete unilateral cleft lip and palate: A case-control cohort study.**

**Author(s):** Tan, E L Y; Kuek, M C; Wong, H C; Yow, M

**Source:** Orthodontics & craniofacial research; Nov 2017; vol. 20 (no. 4); p. 189-195

**Publication Type(s):** Journal Article

**Abstract:**OBJECTIVES Many reports suggest that children with cleft lip and palate (CLP) have delayed dental development and asymmetrical timing of tooth-pair formation. We aimed to investigate the dental maturation of permanent teeth in children with complete unilateral CLP (UCLP) and compare the findings with non-CLP children. SETTING AND SAMPLE POPULATION This case-control study used 115 radiographs of children with complete UCLP and controls (non-CLP children matched on age, gender and ethnicity) from a hospital-based dental clinic in Singapore. MATERIAL AND METHODS Orthopantomographs of 60 children with complete UCLP (5-9 years old) and 55 children (9-13 years old) from the same cohort were investigated using the Demirjian's method and compared with controls to determine if there were any differences in dental maturation with age. RESULTS Delayed dental maturation was found in the 5- to 9-year-old children with UCLP compared to controls by 0.55 years (standard deviation: 0.75) (P<.001). There was no significant difference between the dental maturation of children with UCLP and controls in the 9- to 13-year-old group (P=.744). The group with UCLP had higher risk of asymmetrically developing tooth pairs than the control group for both age groups (P<.001). CONCLUSION No difference in dental maturation between UCLP and controls in the 9- to 13-year-old group was found. However, there was diametrical difference in dental maturation in the 5- to 9-year-old group, which attenuated as they grew older. There was a consistently higher risk of asymmetrical tooth formation in children with UCLP than in controls.

**Periodontal Indices and Status in 34 Growing Patients with Unilateral Cleft Lip and Palate: A Split-Mouth Study.**

**Author(s):** Plakwicz, Paweł; Wyrębek, Beata; Górska, Renata; Cudziło, Dorota

**Source:** International Journal of Periodontics & Restorative Dentistry; Nov 2017; vol. 37 (no. 6)

**Publication Type(s):** Academic Journal

**Abstract:**The article presents a study on the impact of differences in periodontal parameters between the cleft and the control side for cleft lip and palate patients on their ability to maintain proper oral hygiene and on differences in pocket probing depth and clinical attachment level. Topics include the use of periodontal examination and split-mouth design to observe dental plaque accumulation and bleeding, and the tendency for keratinized gingiva and vestibule depth to be lower adjacent to clefts.

**Psychometric findings and normative values for the CLEFT-Q based on 2,434 children and young adult patients with cleft lip and/or palate from 12 countries**

**Author(s):** Klassen A.F.; Harman K.; Tsangaris E.; Riff K.W.; Forrest C.; Longmire N.M.; Albert A

**Source:** Quality of Life Research; Oct 2017; vol. 26 (no. 1); p. 42

**Publication Type(s):** Conference Abstract

**Abstract:**Aims: Patients with cleft lip and/or palate (CL/P) can undergo numerous procedures to improve appearance, speech, dentition and hearing. We developed a cleft-specific patient-reported outcome (PRO) instrument to facilitate rigorous international measurement and benchmarking. Methods: Data were collected from patients aged 8 to 29 years with CL/P at 30 hospitals in 12 countries between October 2014 and November 2016. Rasch measurement theory (RMT) analysis was used to refine the scales and to examine reliability and validity. Normative CLEFT-Q values were computed for age, gender and cleft type. Results: Analysis led to the refinement of an eating/drinking checklist and 12 scales measuring appearance of the face, nose, nostrils, teeth, lips, jaws and cleft lip scar), health-related quality of life psychological, social, school, speech-related distress) and speech function. All scales met the requirements of the Rasch model. Analysis to explore differential item function by age, gender and country provided evidence to support the use of a common scoring algorithm for each scale for international use. Hypotheses that poorer outcomes would be associated with having a speech problem, being unhappy with facial appearance, and needing future cleft-related treatments were supported. Normative values for age, gender and cleft type showed poorer outcomes associated with older age, female gender and having a visible cleft. Conclusions: The CLEFT-Q represents a rigorously developed PRO instrument that can be used internationally to collect and compare evidence-based outcomes data from patients aged 8 to 29 years of age with CL/P.

**Cephalometric Soft Tissue Characteristics of Unilateral Cleft Lip and Palate Patients in Relation to Missing Teeth.**

**Author(s):** Almoammar, Khalid A.; Almarhoon, Hala A.; Batwa, Waeil; Alqahtani, Nasser; Al-Jewair, Thikriat; Albarakati, Sahar

**Source:** BioMed Research International; Oct 2017 ; p. 1-7

**Publication Type(s):** Academic Journal

Available at [BioMed Research International](#) - from Europe PubMed Central - Open Access

**Abstract:**Objective. This study aimed to evaluate cephalometric soft tissue characteristics in individuals with unilateral complete cleft lip and palate (UCCLP) both with and without missing teeth. [ABSTRACT EDITED]

## Journal Tables of Contents

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October 2017; Volume 55, Issue 8

### [Head and Neck](#)

November 2017; Volume 39, Issue 11

### [Oral Surgery](#)

August 2017; Volume 10, Issue 3 (Quarterly)

### [Oral Surgery Oral Medicine Oral Pathology Oral Radiology](#)

October 2017; Volume 124, Issue 4

### [The Cleft Palate-Craniofacial Journal](#)

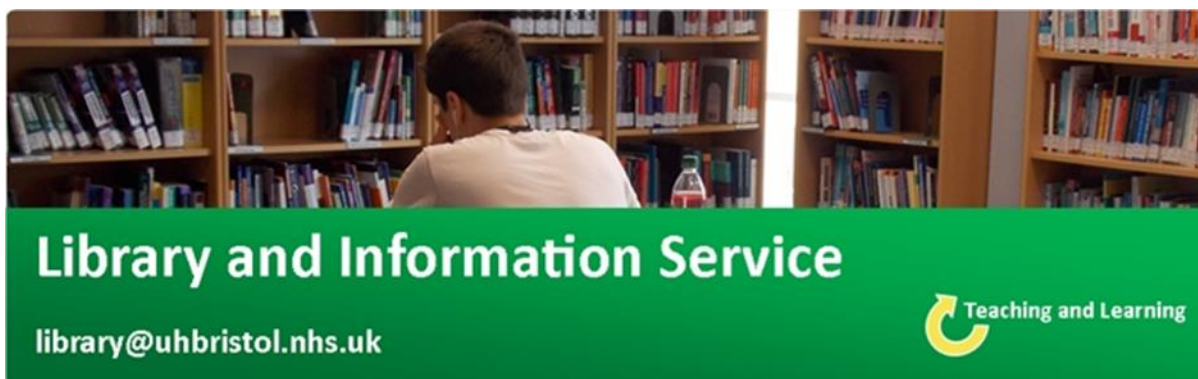
November 2017; Volume 54, Issue 6

## Exercise: Heterogeneity

**Heterogeneity is the extent to which studies brought together in a systematic review demonstrate variation across a range of key variables.**

*Match the different types of heterogeneity:*

1. Statistical heterogeneity (conventionally just known as 'heterogeneity')
  2. Methodological heterogeneity
  3. Clinical heterogeneity
- 
- A. Variability in the participants, interventions and outcomes studied
  - B. Variability in study design and risk of bias
  - C. Variability in the intervention effects being evaluated in the different studies



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