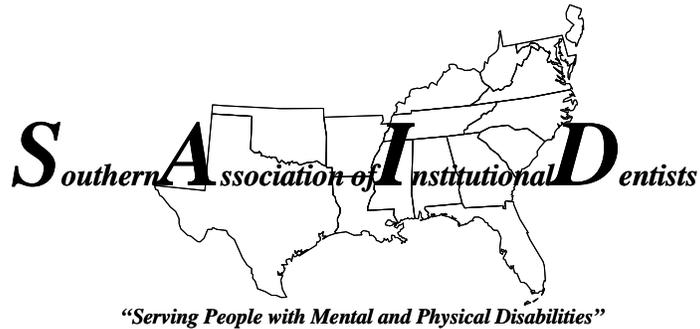


SAID Annual Meeting: Myrtle Beach 2007



SAID's Search of Dental Literature Published In Calendar Year 2006*

**Recent journal articles related to oral health care
for people with mental and physical disabilities.**

Search Program = PubMed
Database = Medline
Journal Subset = Dental
Publication Timeframe = Calendar Year 2006
Language = English
Search Results = 1,713 articles
Initial filtering = 312 articles
Final selection = 98 articles

Contributors:

Scott Monroe, DDS
Paul Burtner, DMD

**NOTE: The American Dental Association is responsible for entering journal articles into the National Library of Medicine database; however, some articles are not entered in a timely manner. Some articles are entered years after they were published and some are never entered.*

SAID Search-Terms Employed:

Mental retardation	Conscious sedation
Mental deficiency	Analgesia
Mental disorders	Anesthesia
Intellectual disabilities	Dental anxiety
Developmental disabilities	Nitrous oxide
Mental health	Gingival hyperplasia
Dental care for disabled	Gingival hypertrophy
Dental care for chronically ill	Glossectomy
Self-mutilation	Sialorrhea
Disabled	Bruxism
Behavior management	Deglutition disorders
Behavior modification	Pediatric dentistry
Behavior therapy	Community dentistry
Cognitive therapy	Public health dentistry
Down syndrome	State dentistry
Cerebral palsy	Gagging
Epilepsy	Substance abuse
Enteral nutrition	Tooth brushing
Gastrostomy	Pharmaceutical preparations
Physical restraint	
Immobilization	
Protective devices	

1. **Sedation and safety: 36 years of perspective.** Malamed, S. F. *Alpha.Omega*. 99[2], 70-74. 2006.
Keywords: Conscious Sedation
2. **A sedation dental practice.** Meltzer, R. *Alpha.Omega*. 99[2], 55. 2006.
Keywords: Conscious Sedation
3. **Practical oral sedation in dentistry, part I: pre-sedation consideration and preparation.** Lu, D. P. and Lu, W. I. *Compend.Contin.Educ.Dent.* 27[8], 453-461. 2006.
Keywords: Conscious Sedation
Abstract: This article presents a practical approach for safe oral sedation in dentistry. When properly done, oral sedation can provide comfort and a calming treatment environment for patients whose fears inhibit them from securing needed dental care. The authors provide information on medico-legal aspects of sedation, patient treatment recommendations, counseling, evaluation, monitoring, documentation, and proper discharge procedures. The reliable sedatives that have undergone years of clinical trials with a good safety record and predictable results are presented. For each sedative drug, the description, formulation and dosage, onset, duration of sedation, Oral and side effects are discussed in a 2-part presentation
4. **Difficulties in anesthetic management of patients with micrognathia: report of a patient with Stickler syndrome .** Kucukyavuz, Z., Ozkaynak, O., Tuzuner, A. M., and Kishnisci, R. *Oral Surg.Oral Med.Oral Pathol.Oral Radiol.Endod.* 102[6], e33-e36. 2006.
Keywords: Mental Retardation/Developmental Disabilities/Anesthesia,Local
Abstract: Stickler syndrome is an autosomal dominant multisystem disorder with characteristic midface hypoplasia, retromicrognathia, cleft palate and a "moon-shaped" appearance. Progressive myopia and retinal degeneration are frequent. It is estimated that one third of all Pierre Robin patients have Stickler syndrome. Patients with a mandibular hypoplasia like Stickler syndrome present the anesthesiologist considerable

problems when mask ventilation or endotracheal intubation is attempted. In this case report the difficulties in anesthetic management of patients with micrognathia and repeated anesthetic courses of a child with Stickler syndrome are presented. It is vital to detect the syndrome in early stages so that adequate counseling and treatment may be given to avoid the potentially irreversible and disabling consequences

5. **Practical oral sedation in dentistry. Part II--Clinical application of various oral sedatives and discussion.** Lu, D. P. and Lu, W. I. *Compend.Contin.Educ.Dent.* 27[9], 500-507. 2006.

Keywords: Conscious Sedation

Abstract: This article presents a practical approach for safe oral sedation in the dental practice. When used properly, oral sedation can provide comfort and a calming treatment environment for patients whose fear inhibits them from securing needed dental care. In Part I, the authors provided information on medico-legal aspects of sedation, patient treatment recommendations, counseling, evaluation, monitoring, documentation, and proper discharge procedures. In this part, the reliable sedatives that have undergone years of clinical trials and have good records of safety and predictable results are presented. For each sedative, the description, formulation and dosage, onset, duration of sedation, and side effects are discussed

6. **Posttraumatic dental-care anxiety (PTDA): Is "dental phobia" a misnomer?** Bracha, H. S., Vega, E. M., and Vega, C. B. *Hawaii Dent.J.* 37[5], 17-19. 2006.

Keywords: Dental Anxiety

Abstract: In this brief review article, we suggest that the term "dental phobia" may be a misnomer. The problem with using the term "phobia" in a dental-care context is as follows: by definition, phobias involve a fear that is "excessive or unreasonable," which the individual recognizes as such, and in which the anxiety, panic attacks and phobic avoidance are not better accounted for by another disorder, including posttraumatic stress disorder (PTSD). In our experience, most individuals with dental "phobia" do not recognize their symptoms as "excessive or unreasonable" and in that sense, resemble individuals with PTSD. Our review of the dental-care literature suggests that true (innate) dental phobias (akin to unreasonable fear at the sight of blood or a syringe) probably account for a smaller percentage of cases, and that the vast majority of dental-care anxiety (DA) cases stem from aversive dental experiences. Research has documented that individuals who reported having experienced painful dental treatments and perceived a lack of control in the dental situation were approximately 14 times more likely to also report higher dental fear, and approximately 16 times more likely to report being less willing to return to the dental treatment. Therefore, we propose that this psychological condition should be conceptualized as Posttraumatic Dental-Care Anxiety (PTDA), and should be classified as part of the Posttraumatic Stress Disorder (PTSD) spectrum in the forthcoming Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V)

7. **Calculating and justifying total anxiolytic doses of medications for in-office use.** Goodchild, J. H. and Donaldson, M. *Gen.Dent.* 54[1], 54-57. 2006.

Keywords: Conscious Sedation/Dental Anxiety/Behavior management

Abstract: Providing anxiolysis (diminution of anxiety and/or fear) for patients is a popular technique for improving a patient's tolerance of invasive dental procedures. Currently there are no guidelines for helping dentists select the appropriate amount of oral medication for a patient who requires anxiolysis. Besides the availability of inherently safe drugs, pulse oximetry, and emergency equipment, conservative dosing guidelines should be established for the oral medications used most commonly. This article proposes guidelines for calculating and justifying the total anxiolytic doses of medications used in-office, with an emphasis on triazolam and lorazepam

8. **Drizzling of saliva: a review of the etiology and management options.** Meningaud, J. P., Pitak-Arnnop, P., Chikhani, L., and Bertrand, J. C. *Oral Surg.Oral Med.Oral Pathol.Oral Radiol.Endod.* 101[1], 48-57. 2006.

Keywords: Sialorrhea

Abstract: Drooling of saliva appears to be the consequence of a dysfunction in the coordination of the swallowing mechanism, resulting in excess pooling of saliva in the anterior portion of the oral cavity and the unintentional loss of saliva from the mouth. Drooling can produce significant negative effects on physical health and quality of life, especially in patients with chronic neurological disabilities. Various approaches to manage this condition have been described in the literature, including oral motor therapy, behavior

modification via biofeedback, orofacial regulation therapy, drug therapy, radiotherapy, and surgical treatments. Minimally invasive modalities, such as injection of botulinum toxin, photocoagulation, and acupuncture, have also been reported. This article provides a comprehensive and thorough overview of drooling, with an emphasis on understanding its etiologies and modalities of treatment

9. **Bisphosphonate induced osteonecrosis of the jaws: an ounce of prevention may be worth a pound of cure.** Hellstein, J. W. and Marek, C. L. *Spec.Care Dentist.* 26[1], 8-12. 2006.

Keywords: Bisphosphonates/Osteonecrosis

Abstract: Patient exposure to bisphosphonate drugs for the management of hypercalcemia of malignancy, osteolytic lesions of metastatic cancer and osteoporosis has led to increasing reports of osteonecrosis of the jaws (bis-phossy jaw). This serious and debilitating condition requires dental practitioners to be alert for signs and symptoms of this syndrome. Thus far, nitrogen containing bisphosphonates have been implicated as a causative agent. While only a small fraction of patients who have taken these agents will develop osteonecrosis, it seems that patients who have received intravenous bisphosphonates are at greater risk than those who have taken oral agents. Tooth extractions are the most frequently reported predisposing dental procedure. While appropriate management strategies for patients with osteonecrosis of the jaws are evolving, we are suggesting rational preventive protocols and therapies based upon current experience and knowledge. These recommendations may change over time as the profession gains more experience in managing these patients

10. **Dental management of patients receiving oral bisphosphonate therapy: expert panel recommendations.** *J.Am.Dent.Assoc.* 137[8], 1144-1150. 2006.

Keywords: Bisphosphonates/Osteonecrosis

Abstract: BACKGROUND: In light of the uncertainty surrounding the incidence of bisphosphonate-associated osteonecrosis of the jaw (BON) and concomitant risk factors, dentists have questioned how to manage the care of patients receiving oral bisphosphonate therapy. Expert panelists were selected by the American Dental Association Council on Scientific Affairs on the basis of their expertise in the relevant subject matter and on their respective dental or medical specialties, and the panel was tasked with developing guidance for dentists treating these patients. METHODS: There are no data from clinical trials evaluating dental management of the care of patients receiving oral bisphosphonate therapy and, therefore, these recommendations are based on a thorough review of the available literature relating to bisphosphonate use and osteonecrosis of the jaw. After reviewing the literature, the panel developed these recommendations based on their expert opinion. RESULTS: These panel recommendations focus on conservative surgical procedures, proper sterile technique, appropriate use of oral disinfectants and the principles of effective antibiotic therapy. CONCLUSIONS: The recommendations are a resource for dentists to use in their practice, in addition to the dentist's own professional judgment, the information available in the dental and medical literature, and information from the patient's treating physician. The recommendations must be balanced with the practitioner's professional judgment and the individual patient's preferences and needs

11. **Bisphosphonate-associated osteonecrosis of the jaw: a literature review and clinical practice guidelines.**

Pickett, F. A. *J.Dent.Hyg.* 80[3], 10. 2006.

Keywords: Bisphosphonates/Osteonecrosis

Abstract: BACKGROUND: Osteonecrosis of the jaw has recently been reported as a possible adverse drug effect from bisphosphonate therapy. Reports are coming from all over the world. Novartis, a pharmaceutical manufacturer of two implicated drug products, has notified dentists in the United States and made recommendations for dental management of cases. MECHANISM OF ACTION: The exact mechanism of bisphosphonate effects leading to osteonecrosis of the jaw is unknown. The condition can affect both the maxilla and the mandible. Most cases developed following oral infection or dental treatment. PREVENTION AND MANAGEMENT: Clinical guidelines for prevention and management have recently been published. Dental hygienists have a major role in patient education related to awareness of the potential drug effect and to preventive oral health education

12. **Dental implants in edentulous adults with cognitive disabilities: report of a pilot project.** Durham, T. M., King, T., Salinas, T., Franco, T., and Ross, J. *Spec.Care Dentist.* 26[1], 40-46. 2006.
Keywords: Dental Implants/Mental Retardation
Abstract: Individuals with cognitive disabilities face many barriers to oral care, often suffering from partial or complete edentulism. While the use of implant reconstruction is becoming more common in the general population, such care is still being used infrequently in individuals with intellectual impairment. A pilot project in 1995 surgically placed and restored implant-supported prostheses in six edentulous adults who had varying degrees of cognitive impairment. This report presents the dentists' reconstruction experiences and the patients' follow-up care, and discusses the results in relationship to current literature. Experiences from these patients suggest that behavior during the restorative process, prosthetic complications post placement, and patients' oral hygiene practices should influence patient selection and prosthetic design. Anteriorly placed fixtures and removable designs, which make self-care and repair easier, can be used to treat an edentulous population
13. **The use of botulinum toxin-a in the treatment of severe bruxism in a patient with autism: a case report.** Monroy, P. G. and da Fonseca, M. A. *Spec.Care Dentist.* 26[1], 37-39. 2006.
Keywords: Autistic Disorder/Bruxism
Abstract: This case report describes an alternative method for reducing bruxism in a special needs patient who was not a candidate for an intraoral appliance. Bruxism is often seen in patients with special needs and can result in excessive dental wear, temporo-mandibular joint pain, avulsion of teeth and other problems. Current methods of management are not typically effective in this population because most require patient compliance. An 11-year-old male diagnosed with autism and Bannayan-Zonana syndrome received bilateral injections of botulinum toxin type-A (Botox Allergan Pharmaceuticals, Irvine CA) in the masseter muscle. The patient's condition was followed up via post-operative telephone interviews with the parents for 60 days. A reduction in the frequency and severity of bruxism was reported. The only side effects noted were soreness at the injection site and mild, temporary drooling. Although further research is required to determine the optimal doses and injection frequency, botulinum toxin type-A appears to be an alternative method for controlling bruxism in the special needs population
14. **Bruxism: its multiple causes and its effects on dental implants - an updated review.** Lobbezoo, F., Van Der, Zaag J., and Naeije, M. *J.Oral Rehabil.* 33[4], 293-300. 2006.
Keywords: Bruxism/Dental Implants
Abstract: There is a growing interest in bruxism, as evidenced by the rapidly increasing number of papers about this subject during the past 5 years. The aim of the present review was to provide an update of two previous reviews from our department (one about the aetiology of bruxism and the other about the possible role of this movement disorder in the failure of dental implants) and to describe the details of the literature search strategies used, thus enabling the readers to judge the completeness of the review. Most studies that were published about the etiology during the past 5 years corroborate the previously drawn conclusions. Similarly, the update of the review about the possible causal relationship between bruxism and implant failure reveals no new points of view. Thus, there is no reason to assume otherwise than that bruxism is mainly regulated centrally, not peripherally, and that there is still insufficient evidence to support or refute a causal relationship between bruxism and implant failure. This illustrates that there is a vast need for well-designed studies to study both the aetiology of bruxism and its purported relationship with implant failure
15. **Dental implants in patients with bruxing habits.** Lobbezoo, F., Brouwers, J. E., Cune, M. S., and Naeije, M. *J.Oral Rehabil.* 33[2], 152-159. 2006.
Keywords: Dental Implants/Bruxism
Abstract: Bruxism (teeth grinding and clenching) is generally considered a contraindication for dental implants, although the evidence for this is usually based on clinical experience only. So far, studies to the possible cause-and-effect relationship between bruxism and implant failure do not yield consistent and specific outcomes. This is partly because of the large variation in the literature in terms of both the technical aspects and the biological aspects of the study material. Although there is still no proof for the suggestion that bruxism causes an overload of dental implants and of their suprastructures, a careful approach is recommended. There are a few practical guidelines as to minimize the chance of implant failure. Besides the recommendation to reduce or eliminate bruxism itself, these guidelines concern the number and

dimensions of the implants, the design of the occlusion and articulation patterns, and the protection of the final result with a hard occlusal stabilization splint (night guard)

16. **Early dental management of patients with Mobius syndrome.** Magalhaes, M., Araujo, L., Chiaradia, C., Fraige, A., Zamunaro, M., and Mantesso, A. *Oral Dis.* 12[6], 533-536. 2006.
Keywords: Developmental Disabilities
Abstract: OBJECTIVE(S): The aim of this study was to evaluate the orofacial manifestations in patients with Mobius syndrome (MS), establish an early adequate dental treatment and discuss the possible etiology of all cases examined based on information about the gestational interurrences. DESIGN: Prospective study. SETTING: Special Care Dentistry Center, School of Dentistry, University of Sao Paulo, Brazil. Subject(s) and methods: Twenty-nine patients with MS aged 0 to 4 underwent prospective dental examination as well as early orthodontic treatment. RESULTS: All patients presented micrognathia, lack of lip seal, high arched palate and weak soft palate. The use of orthopedic appliances was recommended to all 29 patients, but only 13 adhered to treatment and were monitored for at least 24 months. We observed that, after 24 months of treatment, the palate was expanded and micrognathia became less severe in the majority of the cases. Pregnancy-related complications were reported by 27 (97%) of the 29 mothers. CONCLUSION(S): The early use of orthopedic appliances was important to prevent malocclusion and glossoptosis. Attempted abortion with misoprostol is associated with an increased risk of MS in infants
17. **Dental care for the neglected mouth of an adolescent with cerebral palsy: a case report.** Sattarzadeh, A. P. and Blinkhorn, A. S. *Dent.Update.* 33[2], 117-2. 2006.
Keywords: Cerebral Palsy
Abstract: A case report is presented of the preventive and clinical care of an adolescent with a neglected mouth, complicated by the medical history of cerebral palsy. CLINICAL RELEVANCE: Knowledge of the treatment which ideally may be offered to patients with cerebral palsy may help such patients retain and maintain their dentition
18. **Educating dental students about oral health care access disparities.** Graham, B. S. *J.Dent.Educ.* 70[11], 1208-1211. 2006.
Keywords: Dental education/access to care
Abstract: Dental educators provide learning experiences for dental students that help them develop the belief that universal access to oral health care is a social justice imperative that will compel them to provide care to underserved patients after they graduate. To accomplish these learning outcomes, dental schools first recruit underrepresented minority students and students with previous volunteerism experiences. Dental educators then expose dental students to learning experiences in the classroom and in the community, dental school-based clinics, and community health clinics, to help them to develop the requisite knowledge, values, and competencies for serving underserved populations. The long-term, educational outcomes of these learning experiences have not been assessed to date. Systematic surveys should be conducted of dentists who have had these educational experiences to measure the number who actually care for the underserved in private dental offices, community health "safety net" clinics, and the Indian and Public Health Services
19. **A framework for service-learning in dental education.** Yoder, K. M. *J.Dent.Educ.* 70[2], 115-123. 2006.
Keywords: Dental education/access to care
Abstract: Service-learning has become an important component of higher education. Integrating service-learning into dental and dental hygiene curricula will foster graduates who are better prepared to work effectively among diverse populations and to function dynamically in the health policy arena. Although the phrase is familiar to dental educators, there is not a consistent understanding of what comprises this pedagogy. This article offers a framework for service-learning in dental education and describes ten components that characterize true service-learning. This framework can provide a common understanding of this form of experiential education that brings community engagement and educational objectives together. More effective programs can be built around a shared understanding of the characteristics and goals of service-learning in dental education

20. **Adult oral sedation in California: what can a dentist do without a special permit or certificate from the Dental Board of California?** Merin, R. L. *J.Calif.Dent.Assoc.* 34[12], 959-968. 2006.
Keywords: Conscious Sedation
Abstract: A significant percentage of patients are fearful of dental procedures, and this has not changed significantly over the past 50 years. Apprehensive patients tend to avoid necessary dental treatment, and their quality of life is compromised in the long term. This article discusses the use of zaleplon, triazolam, and lorazepam to provide oral sedation for apprehensive adult dental patients. Patient evaluation, pharmacology, and selection based on duration of the dental procedure are discussed. Dentists can use the practical protocols and sample prescriptions provided in this article without obtaining special permits or certificates from the Dental Board
21. **It is illegal and unethical to use nitrous oxide/ oxygen conscious sedation without scavenging.** Gillman, M. *SADJ.* 61[9], 382. 2006.
Keywords: Nitrous Oxide
22. **Effective and safe pediatric oral conscious sedation: philosophy and practical considerations.** Nathan, J. E. *Alpha.Omega.* 99[2], 78-82. 2006.
Keywords: Conscious Sedation
Abstract: Because dental treatment can represent a threatening event for some children, need exists to include sedation within our management arsenal. By definition, pre-cooperative children and those lacking in cooperative ability have immature cognitive skills, a highly restricted range of coping abilities, brief or negligible attention spans, and virtually no experience coping with stress. As result, they can be especially prone to maladaptive responses to anxiety provoking situations. For many of these, traditional non-pharmacologic behavior management strategies may often prove inadequate or inappropriate to overcome resistive or uncooperative behaviors. The importance of intervention with non-aversive techniques that provide a safe, child-oriented environment and timely opportunity in which to encounter and cope with fear-producing situations cannot be dismissed. The use of sedation techniques can frequently serve to obtund interfering and potentially harmful behaviors to safely permit quality care, minimize or eliminate the need for aversive measures, and help bridge the transition for a child lacking cooperative ability to the time when cooperation potential develops
23. **Academy of General Dentistry. GD white paper on enteral conscious sedation.** *Gen.Dent.* 54[5], 301-304. 2006.
Keywords: Conscious Sedation
24. **A comparative evaluation of newer sedatives in conscious sedation.** Koirala, B., Pandey, R. K., Saksen, A. K., Kumar, R., and Sharma, S. *J.Clin.Pediatr.Dent.* 30[4], 273-276. 2006.
Keywords: Conscious Sedation
Abstract: This double blind study was undertaken to determine the safety and efficacy of orally administered newer sedatives and analgesics for conscious sedation in 120 child patients. Patients were randomly assigned into: Midazolam (I), Ketamine (II), Zolpidem (III), Midazolam plus Ketamine (IV), Midazolam plus Tramadol (V) and Zolpidem plus Tramadol (VI) groups of 20 each. Onset of action, level of sedation, ease of treatment completion, recovery time, and post-operative amnesia were assessed for all and compared. Midazolam plus ketamine was found the most effective combination providing a fast and adequate analgo-sedation in anxious and uncooperative child patients
25. **Dental management of a child with trisomy 9 mosaicism: a case report.** Moskovitz, M., Brener, D., and Annick, R. R. *Pediatr.Dent.* 28[3], 265-268. 2006.
Keywords: Developmental Disabilities
Abstract: This case report presents the dental management of a 13-year-old girl with mosaic trisomy 9. She had: (1) severe psychomotor retardation; (2) short stature; (3) progressive microcephaly; (4) flat feet; (5) genu valgum; and (6) severe kyphoscoliosis. Dysmorphic facial features included: (1) maxillary prognathism; (2) narrow high-arched palate; (3) short philtrum; (4) small low posterior dysplastic ears; and (5) down slanting palpebral fissures with right eye ptosis. The case report describes initial treatment under general anesthesia and further treatments using conscious sedation. Emphasis was placed on the need to adjust the treatment to patient's skeletal malformations and respiratory problems by adjusting her ability to sit in the dental chair

in an upright position. Supernumerary premolars and opalescent changes of the maxillary incisors might be part of the clinical features related to trisomy 9 mosaic syndrome

26. **Anesthetic management of a patient with Sturge-Weber syndrome undergoing oral surgery.** Yamashiro, M. and Furuya, H. *Anesth.Prog.* 53[1], 17-19. 2006.
Keywords: Anesthesia
Abstract: This case involves a possible complication of excessive bleeding or rupture of hemangiomas. Problems and anesthetic management of the patient are discussed. A 35-year-old man with Sturge-Weber syndrome was to undergo teeth extraction and gingivectomy. Hemangiomas covered his face and the inside of the oral cavity. We used intravenous conscious sedation with propofol and N2O-O2 to reduce the patient's emotional stress. It was previously determined that stress caused marked expansion of this patient's hemangiomas. Periodontal ligament injection was chosen as the local anesthesia technique. Teeth were extracted without excessive bleeding or rupture of hemangiomas, but the planned gingivectomies were cancelled. Deep sedation requiring airway manipulation should be avoided because there are possible difficulties in airway maintenance. Because this was an outpatient procedure, propofol was selected as the sedative agent primarily because of its rapid onset and equally rapid recovery. Periodontal ligament injection with 2% lidocaine containing 1: 80,000 epinephrine was chosen for local anesthesia. Gingivectomy was cancelled because hemostasis was challenging. As part of preoperative preparation, equipment for prompt intubation was available in case of rupture of the hemangiomas. The typically seen elevation of blood pressure was suppressed under propofol sedation so that expansion of the hemangiomas and significant intraoperative bleeding was prevented. Periodontal ligament injection as a local anesthetic also prevented bleeding from the injection site
27. **Microstructure and chemical composition of primary teeth in children with Down.** Keinan, D., Smith, P., and Zilberman, U. *Arch.Oral Biol.* 51[10], 836-843. 2006.
Keywords: Down Syndrome
Abstract: This study was designed to test the hypothesis that prenatal growth insults leave
28. **Evaluation of the relationship between caries indices and salivary secretory IgA, salivary pH, buffering capacity and flow rate in children with Down's syndrome.** Cogulu, D., Sabah, E., Kutukculer, N., and Ozkinay, F. *Arch.Oral Biol.* 51[1], 23-28. 2006.
Keywords: Down Syndrome/Caries
Abstract: The aim of this study was to compare the caries prevalence and salivary secretory
29. **Pallister-Killian syndrome (PKS): clinical case report.** de Oliveira, A. L., Ortega, Ade O., and Ciamponi, A. L. *J.Clin.Pediatr.Dent.* 30[3], 257-260. 2006.
Keywords: Developmental Disabilities
Abstract: Pallister-Killian Syndrome is a rare dysmorphic condition characterized by
30. **Sotos syndrome: a case report.** Gomes-Silva, J. M., Ruviere, D. B., Segatto, R. A., de Queiroz, A. M., and de Freitas, A. C. *Spec.Care Dentist.* 26[6], 257-262. 2006.
Keywords: Developmental Disabilities
Abstract: Sotos Syndrome is a genetic condition characterized by accelerated bone development, abnormal craniofacial morphology and psychomotor developmental retardation. The behavioral problems usually associated with the syndrome include poor social skills, anxiety and/or irritability. Oral findings include prognathism and a high-arched palate with premature eruption of the teeth. Delayed psychomotor development increases the risk for caries. A personalized preventive treatment plan with close supervision of the patient's oral health care is required. This paper documents a child diagnosed with Sotos Syndrome and describes the primary clinical features, the disease-specific craniofacial, oral and dental findings, and dental care management of this patient
31. **Dental findings and dental care management in trisomy 18: case report of a 13-year-old "long-term survivor".** Ribeiro, R. R., dos Santos, B. M., Stuani, A. S., de Freitas, A. C., and de Queiroz, A. M. *Spec.Care Dentist.* 26[6], 247-251. 2006.
Keywords: Developmental Disabilities

Abstract: Trisomy 18 is a disorder characterized by psychomotor disabilities, dysmorphic features and organ malformations, including mental disabilities, growth deficiency, poor motor ability, micrognathia, microcephaly, low-set and malformed ears, distinctively clenched fists with overlapping fingers, and congenital heart defects. The prognosis is poor: 90% of infants with trisomy 18 do not survive beyond the first year of life and 99% die before the age of 10. This paper reports on a 13-year-old child diagnosed with trisomy 18. The major clinical features are cleft lip/palate, high-arched narrow palate, micrognathia, anterior open bite, posterior crossbite and taurodontism. Dental care management of these patients with special needs is discussed and the dental treatment for this child with trisomy 18 is described

32. **A special care dentistry specialty: sounds good, but . . .** Waldman, H. B. and Perlman, S. P. *J.Dent.Educ.* 70[10], 1019-1022. 2006.

Keywords: Special Care Dentistry

33. **Clinical evidence and evidence-based dental treatment of special populations: patients with Alzheimer's disease.** Chiappelli, F., Manfrini, E., Edgerton, M., Rosenblum, M., Cajulis, K. D., and Prolo, P. *J.Calif.Dent.Assoc.* 34[6], 439-447. 2006.

Keywords: Alzheimer Disease

Abstract: This paper presents the novel domain of evidence-based research in the context of treating the dental needs of patients with special needs. A contrast is made between evidence-based dentistry and traditional dentistry, which is based on the evidence obtained by the dentist, with respect to the needs and the wants of the patient, and from the pertinent and accessible literature. By contrast, evidence-based dentistry is focused on integrating traditional dentistry with "the best available" research evidence. The aim of evidence-based dentistry is to improve clinical decision-making by its reliance on a critical analysis of the entire body of the published pertinent literature. It is a system of information management, and a system of data integration that assist clinicians in the process of meshing systemic clinical expertise, evidence provided by the patient, and the best literature evidence to enhance treatment outcomes. Evidence-based dentistry emphasizes rigorous analysis of evidence from clinical research, as the basis of sound dental practice, while discouraging intuitive and unsystematic approaches and promoting the systematic analysis and appraisal of the literature to determine the best treatment alternatives. In the case of patients with special needs, it is critical whether the dentist practices traditional dentistry or evidence-based dentistry to evaluate whether or not the patient is capable of expressing his or her needs/wants, unless, as in the more severe cases, he/she is accompanied by the caregiver. The purpose of this paper is to demonstrate the use of a simple in-house questionnaire for evaluating the patient's ability to tell the dentist his or her needs and wants accurately. In this context, the paper examines the dental needs of patients with dementia of the Alzheimer's type, DAT

34. **Slipping through the cracks. Dental care for older persons with intellectual disabilities.** Waldman, H. B., Truhlar, M. R., and Perlman, S. R. *N.Y.State Dent.J.* 72[2], 47-51. 2006.

Keywords: Dental Care for Disabled

Abstract: An increasing population of men and women with intellectual disabilities and other developmental disabilities is reaching older ages. As our country continues the process of deinstitutionalization, these individuals will require treatment in communities. Dental practitioners increasingly will be involved in the needs of this population, many of whom are members of families being treated in private dental practices. A review of these developments and the particular dental needs of these patients is considered

35. **Task force on special dentistry makes meaningful improvement.** Goldstein, G. *N.Y.State Dent.J.* 72[2], 24-26. 2006.

Keywords: Special Care Dentistry

Abstract: This article explores the formation of a task force to address the specific issues that confront dentists who treat patients with disabilities. From the first meeting, this all-volunteer task force, with representatives from clinical dentistry, public health groups, hospitals and dental schools, set out to recognize the specific issues that arise with special needs patients and offer workable solutions. This article enumerates these issues, and can serve as a reference for dentists and other health professionals

36. **Where will the next generation of special needs dentists come from?** Ettinger, R. L. *Spec.Care Dentist.* 26[1], 5-6. 2006.
Keywords: Special Care Dentistry
37. **Complications of orthodontic-orthognathic surgery treatment in mentally handicapped patients.** Bock, J. J., Maurer, P., Otto, C., Fuhrmann, R. A., and Schubert, J. *J.Craniomaxillofac.Surg.* 34[3], 156-161. 2006.
Keywords: Mentally Disabled Persons
Abstract: AIM: The aim of this study was to analyse possible intra- and postoperative complications and long-term results in combined orthodontic-orthognathic treatment of mentally handicapped patients compared with a control group of patients without handicap. PATIENTS AND METHODS: A group of 20 mentally handicapped patients (male = 7, female = 13) and of 102 non-handicapped patients (male = 36, female = 66) were evaluated retrospectively. The results of the two point-discrimination sensory test and the cephalometric findings of both groups were assessed. Complications during and after the operation, the results of nerve function tests and relapse rates were reported. The statistical analysis was carried out using binary logistical regression analysis with adjustment according to the diagnosis and the type of operation ($p < 0.05$) RESULTS: No significant differences could be found between the mentally handicapped and the non-handicapped patients. Only the nerve function test immediately postoperatively revealed differences between the two patient groups. The relapse rate in mentally handicapped patients was similar to non-handicapped patients. Forty-seven months after the operation, relapse (change in the ANB angle of more than 0.5 degrees) was observed in four patients only (handicapped patients). CONCLUSION: Orthognathic surgical procedures in mentally handicapped patients can be carried out with a similarly high success rate as in mentally healthy patients
38. **Service animals: access to dental facilities.** Henson, N. *Dent.Today* 25[8], 78-79. 2006.
Keywords: Disabled Persons
39. **California community residential facilities for individuals with intellectual and developmental disabilities.** Waldman, H. B. and Perlman, S. P. *J.Calif.Dent.Assoc.* 34[3], 235-238. 2006.
Keywords: Developmental Disabilities
Abstract: Evolving residential requirements for individuals with mild and moderate intellectual disabilities and related developmental disabilities increasingly place these people in community settings. The increasing numbers of these individuals are dependent upon local practitioners for needed health services. National and California data are reviewed in an effort to provide a general awareness of these community living arrangements, which in turn may assist in the delivery and the follow-up of oral health services
40. **Children with special health care needs: results of a national survey.** Waldman, H. B. and Perlman, S. P. *J.Dent.Child (Chic.)* 73[1], 57-62. 2006.
Keywords: Special Care Dentistry
Abstract: The purpose of this review of the 2001 National Survey of Children with Special Health Care Needs (SHCN) was to offer an overview of these youngsters from the perspective of parents. Survey findings include: (1) Nearly 13% (9.4 million) of US children were reported to have SHCN, with the highest prevalence rates among children living in poverty and among Native American children. (2) Dental care was the most commonly reported needed service that was not received. (3) Despite the availability of public forms of insurance, compared to children with private insurance, low-income SHCN children are 2 to 3 times more unlikely to obtain needed health services. (4) SHCN children have a significant impact on family time requirements, economics, and employment patterns. The challenge is to use this information to improve services for SHCN children
41. **Going the extra mile for patients with special needs.** Rossi, M. S. *N.Y.State Dent.J.* 72[2], 6-7. 2006.
Keywords: Special Care Dentistry
42. **Neurosedation in dentistry of the disabled patient: the use of midazolam, propofol, and remifentanyl.** Collini, S., Pinto, G., Lejeune, L., Di Carlo, S., Meloncelli, S., Barraco, G., and Gatto, R. *Minerva Stomatol.* 55[3], 99-113. 2006.
Keywords: Conscious Sedation/Dental Care for Disabled

Abstract. AIM: This prospective randomized study, deals with neurosedation in dental treatment of 200 disabled patients and unable to cooperate, subdivided in 4 groups of 50 male only patients, with age ranging from 28 to 59 (39+/-11), ASA I-III. METHODS: The pharmaceuticals used were Midazolam (group MID) Propofol (group Prop) and Remifentanyl. Midazolam and Propofol were used following a bolus-infusion sequence, both separately and in combination among themselves (MID\PROP group), or with an opioid, Remifentanyl (MID\PROP\REMI group). ECG, heart rate, non invasive blood pressure (NIBP), SaO₂, EtCO₂ during the procedure were monitored. Induction time, duration of the sedation, recovery time and discharge were reported. RESULTS: The statistical analysis demonstrated the superiority of the PROP group for induction time in minute (3.1+/-0.5) in comparison with the MID group (10.6+/-2.1), the MID\PROP group (4.3+/-1.3) and MID\PROP\REMI (3.7+/-1.2). The recovery and discharge times have confirmed the superiority of the MID\PROP\REMI group in comparison with the other 3 groups. CONCLUSION: This combination proved best at leveraging the synergistic characteristics of each single pharmaceutical and minimizing the collateral effects of each individually

43. **Supragingival calculus in children with gastrostomy feeding: significant reduction with a caregiver-applied tartar-control dentifrice.** Brown, L. M., Casamassimo, P. S., Griffen, A., and Tatakis, D. *Pediatr.Dent.* 28[5], 410-414. 2006.

Keywords: Gastrostomy

Abstract. PURPOSE: This study assessed the anti-calculus benefit of Crest Dual Action Whitening Toothpaste in gastrostomy (GT) children compared to a control anti-caries dentifrice. METHODS: A double-blind randomized crossover design was used to compare the two dentifrices. A convenience sample of 24 GT subjects, 3-12 years old, was given a consensus baseline Volpe-Manhold Index calculus score by 2 trained examiners, followed by a dental prophylaxis to remove all calculus. Each child was randomly assigned to either study or control dentifrice groups. Caregivers brushed subjects' teeth twice daily with the unlabelled dentifrice for at least 45 seconds. Calculus was scored at 8 weeks (+/- 1 week) by the same investigators. Subjects then had a prophylaxis and received the alternative dentifrice. Subjects returned 8 weeks (+/- 1 week) later for final calculus scoring. RESULTS: The study dentifrice significantly reduced supragingival calculus from baseline by 58% compared to control dentifrice ($p < 0.005$ need exact p-value unless it is $< .001$; maybe it's reported in the paper). Calculus levels decreased by 68% over the study duration, irrespective of dentifrice. ANOVA found no significant differences in calculus scores based on gender, race, history of reflux, aspiration pneumonia, or oral intake of food. Calculus was significantly related to history of aspiration pneumonia ($p < 0.05$ need exact p-value here). CONCLUSION: Crest Dual Action Whitening Toothpaste was effective and better than anti-caries control dentifrice in reducing calculus in GT children

44. **A review of gagging problems in dentistry: 2. Clinical assessment and management.** Dickinson, C. M. and Fiske, J. *SADJ.* 61[6], 258-62, 266. 2006.

Keywords: Gagging

Abstract. A pronounced gag reflex can be a severe limitation to a patient's ability to accept dental care and for a clinician's ability to provide it. It can compromise all aspects of dentistry from diagnostic procedures to active treatment and can be distressing for all concerned. Many 'management' techniques have been described. This paper describes the different categories of treatment used to manage people with pronounced gag reflexes

45. **Plasma and gingival crevicular fluid phenytoin concentrations as risk factors for gingival overgrowth.** Guncu, G. N., Caglayan, F., Dincel, A., Bozkurt, A., Saygi, S., and Karabulut, E. *J.Periodontol.* 77[12], 2005-2010. 2006.

Keywords: Gingival Hyperplasia

Abstract. BACKGROUND: Gingival enlargement is one of the side effects associated with the administration of phenytoin. The mechanism by which phenytoin induces gingival enlargement is not well understood. This study was conducted to investigate the relationship between plasma and gingival crevicular fluid (GCF) phenytoin concentrations and the degree of gingival overgrowth in patients with similar gingival and plaque indices and also to determine the risk factors for gingival enlargement. METHODS: Eighteen patients taking phenytoin in regular doses > or =6 months prior to the investigation participated in the study. Gingival enlargement was evaluated with two indices to score vertical and horizontal overgrowth. The gingival index (GI), plaque index (PI), gingival bleeding time index (GBTI), probing depth (PD), and clinical attachment level (CAL) were also evaluated. GCF and plasma phenytoin concentrations were determined by using

high-performance liquid chromatography (HPLC). RESULTS: There was no significant difference between responders and non-responders for PD, CAL, PI, GI, and GBTI. Phenytoin was detected in all of the GCF and plasma samples using the HPLC analysis method. The mean concentration of phenytoin in GCF was significantly greater than the concentration of phenytoin in plasma. No significant difference was observed for the concentration of GCF phenytoin between responders and non-responders. However, the concentration of plasma phenytoin was significantly higher in responders than non-responders. CONCLUSION: This study showed that plasma phenytoin level appeared to be a risk factor for phenytoin-induced gingival overgrowth

46. **Treatment of macroglossia in Beckwith-Wiedemann syndrome.** Clauser, L., Tieghi, R., and Polito, J. *J.Craniofac.Surg.* 17[2], 369-372. 2006.
Keywords: Developmental Disabilities
Abstract: A case of macroglossia caused by Beckwith Wiedemann syndrome is reported. Beckwith-Wiedemann Syndrome is an overgrowth disorder characterized by a constellation of congenital anomalies. The most common manifestations are omphalocele, macroglossia, gigantism, and visceromegaly. When the tongue reaches a huge dimension, clinical symptoms are represented by dysphagia, alterations in speech, difficulty in chewing, obstruction of the upper airways, and psychologic consequences derived from the patient's physical appearance. The authors describe the surgical strategy performed in the reported case
47. **Taste after reduction of the tongue in Beckwith-Wiedemann syndrome.** Matsune, K., Miyoshi, K., Kosaki, R., Ohashi, H., and Maeda, T. *Br.J.Oral Maxillofac.Surg.* 44[1], 49-51. 2006.
Keywords: Glossectomy
Abstract: We tested the sensitivity of taste after reduction of the tongue in four girls with Beckwith-Wiedemann syndrome. No patient had taste blindness, but the ability to detect salty and bitter tastes declined after reduction of the tongue
48. **Fetal alcohol syndrome: case report and review of the literature.** Itthagaran, A., Nair, R. G., Epstein, J. B., and King, N. M. *Oral Surg.Oral Med.Oral Pathol.Oral Radiol.Endod.* 103[3], e20-e25. 2007.
Keywords: Developmental Disabilities
Abstract: Due to the significant increase in the incidence and prevalence of the fetal alcohol syndrome (FAS) in developing and developed nations, it is important that dental professionals recognize this condition. Patients with FAS have orofacial characteristics and various psychological and physical symptoms that may affect a dental treatment plan. This article reviews the prevalence, incidence, alcohol dose response and metabolism, and clinical characteristics of FAS. A case demonstrating moderate signs of the condition is included to illustrate some of the characteristics
49. **Salivary LL-37 secretion in individuals with Down syndrome is normal.** Bachrach, G., Chaushu, G., Zigmond, M., Yefenof, E., Stabholz, A., Shapira, J., Merrick, J., and Chaushu, S. *J.Dent.Res.* 85[10], 933-936. 2006.
Keywords: Down Syndrome
Abstract: Antimicrobial peptides play an important role in the innate immune response. Deficiency in salivary LL-37 antimicrobial peptide has been implicated in periodontitis in patients with morbus Kostman syndrome. Down syndrome is associated with periodontitis, diminished salivary flow, and salivary immunoglobulin deficiency. In the present study, levels of LL-37 and its hCAP18 precursor were measured in saliva samples from young individuals with Down syndrome and compared with levels in those from age-matched healthy controls. LL-37 and human cathelicidin antimicrobial protein (hCAP18) were detected in whole but not in parotid saliva. hCAP18 was more abundant than LL-37. The concentrations of salivary hCAP18 and LL-37 were found to be higher in individuals with Down syndrome than in healthy controls, but their secretion rates were similar. We concluded that, while the adaptive immunity of individuals with Down syndrome is impaired at the oral mucosa, the secretion rate of the LL-37 component of the innate immune system is normal
50. **Periodontal disease in a Rubinstein-Taybi syndrome patient: case report.** Freitas, N. M., Imbronito, A. V., La Scala, C. S., Lotufo, R. F., and Pustigliani, F. E. *Int.J.Paediatr.Dent.* 16[4], 292-296. 2006.
Keywords: Developmental Disabilities
Abstract: INTRODUCTION: Rubinstein-Taybi syndrome (RTS) is a rare disorder affecting 1 of 300,000 people, characterized by growth, mental and motor retardation, small stature, broad thumbs and toes, characteristic

face, high-arched palate, and recurrent respiratory infections. **CASE REPORT:** The present report describes the periodontal and immunological status of a 14-year-old female patient with RTS. Probing depth, clinical attachment level, bleeding on probing, and radiographic evaluation were performed. Periodontal examination revealed severe attachment loss in incisors and molars and generalized bleeding on probing. Periodontal treatment consisted of scaling and root planing and oral hygiene instructions. Periodontal treatment resulted in resolution of gingival inflammation and pocket depth reductions. The association of periodontal disease and RTS is previously undescribed. **CONCLUSION:** This case report underscores the importance of periodontal clinical diagnosis and the possibility of successful periodontal treatment in RTS patients

51. **A case of Coffin-Lowry syndrome with premature exfoliation of primary teeth.** Igari, K., Hozumi, Y., Monma, Y., and Mayanagi, H. *Int.J.Paediatr.Dent.* 16[3], 213-217. 2006.
Keywords: Developmental Disabilities
Abstract: We present a case of a 5-year-old boy with premature exfoliation of primary teeth. All eight primary incisors had exfoliated by the age of 3 years, and three canines and one primary first molar were subsequently lost when he was 4 years old. None of the exfoliated teeth exhibited caries. The boy also showed characteristic facial changes, tapering of the fingers, and mental and motor retardation. Based on these findings, he was diagnosed as having Coffin-Lowry syndrome. Premature exfoliation of primary teeth in Coffin-Lowry syndrome has been described in a few reports. This manifestation of the disease would be helpful for diagnosis at an early stage as those previous reports suggested

52. **Acrocallosal syndrome.** Shilpa, B. J., Ashok, L., and Sattur, P. A. *J.Indian Soc.Pedod.Prev.Dent.* 24[1], 45-49. 2006.
Keywords: Developmental Disabilities
Abstract: Presented here is a case of a 8 year old boy with typical clinical manifestations of Acrocallosal syndrome. The characteristic features of this syndrome are craniofacial abnormalities, distinctive digital malformation, mental retardation. The clinical and major nosologic aspects of this condition are discussed

53. **Methamphetamine and meth mouth: an overview.** Williams, N. and Covington, J. S., III. *J.Tenn.Dent.Assoc.* 86[4], 32-35. 2006.
Keywords: Methamphetamine

54. **Signs of bruxism and temporomandibular disorders among psychiatric patients.** Winocur, E., Hermesh, H., Littner, D., Shiloh, R., Peleg, L., and Eli, I. *Oral Surg.Oral Med.Oral Pathol.Oral Radiol.Endod.* 103[1], 60-63. 2007.
Keywords: Bruxism/Mental Illness
Abstract: **OBJECTIVES:** To investigate the prevalence of bruxism and signs of temporomandibular disorders (TMDs) among psychiatric patients compared with a healthy population and to assess the effect of psychiatric medications on the parameters studied. **STUDY DESIGN:** Subjects included 77 psychiatric patients under treatment at 2 psychiatric hospitals in Israel and 50 healthy individuals (control). One experienced calibrated examiner performed the clinical examination (presence of bruxism and signs of TMD). **RESULTS:** Abnormal attrition was evident in 46.8% of the psychiatric patients compared with 20% in the controls ($P < .005$). Significant differences between groups were apparent for mean muscle sensitivity to palpation, joint sensitivity to palpation, and range of mouth opening. There were no differences between groups in the prevalence of joint clicks and no association between time of receiving treatment with dopamine antagonists (or any other psychotropic drugs) and TMD signs and symptoms. **CONCLUSION:** The higher prevalence of bruxism and signs of TMD in psychiatric patients is a major clinical comorbidity. Whether it is a manifestation of the abnormal central nervous system of psychiatric patients or neuroleptic-induced phenomenon deserves further attention. The exact factors that affect the pain experience in these patients should be evaluated as well

55. **Kabuki syndrome: a case report .** Lung, Z. H. and Rennie, A. *J.Orthod.* 33[4], 242-245. 2006.
Keywords: Developmental Disabilities
Abstract: This article reports the case of an 8-year-old female with Kabuki syndrome and the oral/dental implications of this syndrome, namely hypodontia with interdental spacing, abnormal tooth morphology,

malocclusion and a defect in the anterior midline of the palate. The oral findings will aid the clinician in diagnosing this syndrome, which was once thought to be seen exclusively in the Japanese population

56. **The methamphetamine epidemic and dentistry.** Klasser, G. D. and Epstein, J. B. *Gen.Dent.* 54[6], 431-439. 2006.
Keywords: Methamphetamine
Abstract: Methamphetamine is a potent central nervous system stimulant with limited therapeutic effects. This drug produces prolonged euphoria and is relatively inexpensive to purchase and easy to make and distribute. Methamphetamine changes normal physiologic processing of several centrally acting neurotransmitters and ultimately leads to neurotoxicity and neurodegeneration from chronic use. Chronic methamphetamine use has been associated with severe oral health effects; rampant caries is the most notable of these. Dental professionals must recognize patients who are involved with methamphetamine use and understand the risk factors associated with its deleterious oral effects so that preventive and treatment strategies may be implemented for patients who use this drug
57. **Guidelines for the development of local standards of oral health care for people with dementia.** Fiske, J., Frenkel, H., Griffiths, J., and Jones, V. *Gerodontology.* 23 Suppl 1, 5-32. 2006.
Keywords: Dementia
58. **The neuropathology, medical management and dental implications of autism.** Friedlander, A. H., Yagiela, J. A., Paterno, V. I., and Mahler, M. E. *J.Am.Dent.Assoc.* 137[11], 1517-1527. 2006.
Keywords: Autistic Disorder
Abstract: BACKGROUND: A paucity of information exists in the dental literature about autism and its dental implications. TYPES OF STUDIES REVIEWED: The authors conducted a MEDLINE search for the period 2000 through 2006, using the term "autism," with the aim of defining the condition's clinical manifestations, dental and medical treatment and dental implications. RESULTS: Autism is a severe developmental brain disorder that appears in infancy, persists throughout life, and is characterized by impaired social interaction, abnormalities in communication (both verbal and nonverbal) and restricted interests. Often accompanying the disorder are behavioral disturbances - such as self-mutilation, aggression, psychiatric symptoms and seizures - that necessitate the administration of multiple medications to help the affected person participate effectively in the educational and rehabilitative process. CLINICAL IMPLICATIONS: Dentists caring for people with autism must be familiar with the manifestations of the disease and its associated features so that they can garner the maximum level of patient cooperation. They also must be familiar with the medications used to treat the associated features of the disorder because many of them cause untoward orofacial and systemic reactions and may precipitate adverse interactions with dental therapeutic agents
59. **Self-reports of psychosocial functioning among children and young adults with cleft lip and palate.** Hunt, O., Burden, D., Hepper, P., Stevenson, M., and Johnston, C. *Cleft Palate Craniofac.J.* 43[5], 598-605. 2006.
Keywords: Cleft Lip/Cleft Palate
Abstract: OBJECTIVE: A cross-sectional study was employed to determine the psychosocial effects of cleft lip and/or palate among children and young adults, compared with a control group of children and young adults without cleft lip and palate. PARTICIPANTS: The study comprised 160 children and young adults with cleft lip and/or palate and 113 children and young adults without cleft lip and/or palate. All participants were between 8 and 21 years of age. OUTCOME MEASURES: Psychological functioning (anxiety, self-esteem, depression, and behavioral problems) was assessed using validated psychological questionnaires. Happiness with facial appearance was rated using a visual analog scale. Social functioning, including experience of teasing/bullying and satisfaction with speech, was assessed using a semistructured interview. RESULTS: Participants with cleft lip and/or palate reported greater behavioral problems ($p < .001$) and more symptoms of depression ($p < .01$); they were teased more often ($p < .001$) and were less happy with their facial appearance ($p < .01$) and speech ($p < .001$), compared with controls. There were no significant difference between subjects with cleft lip and/or palate and subjects without cleft lip and/or palate in terms of anxiety ($p > .05$) or self-esteem ($p > .05$). Having been teased was a significant predictor of poor psychological functioning, more so than having a cleft lip and/or palate per se ($p < .001$). CONCLUSIONS: Teasing was greater among participants who had cleft lip and/or palate and it was a significant predictor of poorer psychosocial functioning. Children and young adults with cleft lip and/or palate require psychological assessment, specifically focusing on their experience of teasing, as part of their routine cleft care

60. **Tooth wear among psychiatric patients: prevalence, distribution, and associated factors.** Al Hiyasat, A. S., Khasawneh, S. F., and Khader, Y. S. *Int.J.Prostodont.* 19[4], 403-409. 2006.
Keywords: Mental Illness
Abstract: PURPOSE: The purpose of this study was to evaluate the prevalence, distribution, and associated factors of tooth wear among psychiatric patients. MATERIALS AND METHODS: Tooth wear was evaluated using the tooth wear index with scores ranging from 0 to 4. The presence of predisposing factors was recorded in 143 psychiatric patients attending the outpatient clinic at the Prince Rashed Hospital in northern Jordan. RESULTS: The prevalence of a tooth wear score of 3 in at least one tooth was 90.9%. Patients in the age group 16 to 25 had the lowest prevalence (78.6%) of tooth wear. Increasing age was found to be a significant risk factor for the prevalence of tooth wear ($P < .005$). The occlusal/incisal surfaces were the most affected by wear, with mandibular teeth being more affected than maxillary teeth, followed by the palatal surface of the maxillary anterior teeth and then the buccal/labial surface of the mandibular teeth. The factors found to be associated with tooth wear were age, retirement and unemployment, masseter muscle pain, depression, and anxiety. CONCLUSION: Patients' psychiatric condition and prescribed medication may be considered factors that influence tooth wear
61. **Interprofessional educational partnerships in school health for children with special oral health needs.** Mabry, C. C. and Mosca, N. G. *J.Dent.Educ.* 70[8], 844-850. 2006.
Keywords: Special Care Dentistry
Abstract: Dental caries is an infectious yet preventable disease that is rampant in some subpopulations in the United States, in particular among individuals with neurodevelopmental/intellectual disabilities (ND/ID). This article reports on the implementation and evaluation of the Louisiana State University Health Sciences Center (LSUHSC) School of Dentistry interprofessional school health educational model to improve oral health assessment and referral for children with ND/ID in an inner-city school system. During this project, dental hygiene students and elementary school nurses were paired to assess the oral health status of 255 inner-city children with developmental disabilities, improve referral/access to dental care for those identified as having need, and propose dental hygiene curriculum changes that would incorporate participation in a "real-life public health setting" for those with ND/ID. Following the program, 66 percent of dental hygiene students said their likelihood of participating in future oral health programs had increased and 75 percent of school nurses rated the educational process as very good or excellent. Modifications in dental hygiene curricula that provide students with training and experience in oral health risk assessment and referral for people with ND/ID is recommended to address the new Commission on Dental Accreditation educational standards 2-18 and 2-26 (implemented January 1, 2005) and dental standard 2-26 (implemented January 1, 2006), which state that dental hygiene and dental graduates must be competent in assessing the treatment needs of patients with special needs
62. **Dental implant treatment for patients with psychiatric disorders.** Addy, L., Korszun, A., and Jagger, R. G. *Eur.J.Prostodont.Restor.Dent.* 14[2], 90-92. 2006.
Keywords: Mental Disorders/Implants
Abstract: The literature with respect to whether or not psychiatric disorders represent a contraindication to dental implant treatment is sparse and contradictory. This paper describes three cases in which patients with psychiatric disorders were provided with dental implant retained prostheses. It is concluded that mental health disorders are not necessarily a contraindication to dental implant treatment and dental implant treatment can provide valuable psychological support. If any doubt exists about the effect of a psychiatric disorder on the prognosis of implant treatment the opinion of a psychiatrist should be obtained. The development of liaison psychiatry for dental hospitals should be seen as an ideal
63. **Providing dental care to patients with developmental disabilities: medical/legal issues.** Romer, M. and Filanova, V. *N.Y.State Dent.J.* 72[2], 36-37. 2006.
Keywords: Developmental Disabilities
Abstract: Dentists providing treatment to individuals with developmental disabilities are often faced with unique medical/legal issues. Obtaining informed consent when a patient does not have capacity can be an involved process. Issues regarding therapeutic aids used for immobilization during treatment may further complicate the situation

64. **Dental considerations for individuals with Down syndrome.** Seagriff-Curtin, P., Pugliese, S., and Romer, M. *N.Y.State Dent.J.* 72[2], 33-35. 2006.
Keywords: Down Syndrome
Abstract: Down syndrome is one of the most frequently encountered and easily recognizable of all developmental disabilities. Patients with Down syndrome exhibit mental retardation and often present with associated medical conditions, such as cardiac defects, immune deficiencies and musculoskeletal disorders. It is important for the dental practitioner to be familiar with the medical aspects of Down syndrome, as well as the potential behavioral issues. We present a brief review of Down syndrome for the dental provider and suggest that with a little knowledge and some patience, most private practitioners can easily accommodate these patients in their practice
65. **Providing dental care to patients with developmental disabilities. An introduction for the private practitioner.** Dougherty, N. and MacRae, R. *N.Y.State Dent.J.* 72[2], 29-32. 2006.
Keywords: Developmental Disabilities
Abstract: During the past 20 to 25 years, in New York State, most individuals with developmental disabilities who had previously been housed in large institutions have been mainstreamed into community-based residences. This shift has created a need for dental services in the community. The article presented here provides information and tips to assist the general practitioner with integrating these patients into a private practice setting
66. **Meth mouth: a review of methamphetamine abuse and its oral manifestations.** Curtis, E. K. *Gen.Dent.* 54[2], 125-129. 2006.
Keywords: Methamphetamine
Abstract: Illicit methamphetamine use is reported widely by news media and discussed increasingly among scholars, clinicians, and members of civic and law enforcement organizations and legislative bodies. This article examines the phenomenon of methamphetamine abuse, including its extent, its effects on both users and society, and its implications for dentistry. Meth mouth refers to a pattern of oral signs and symptoms of methamphetamine abuse, thought to include rampant caries and tooth fracture, leading to multiple tooth loss and edentulism
67. **Autism: the aetiology, management and implications for treatment modalities from the dental perspective.** Chew, L. C., King, N. M., and O'Donnell, D. *Dent.Update.* 33[2], 70-6, 78. 2006.
Keywords: Autistic Disorder
Abstract: Autism is defined as a rare and severe psychiatric disorder of childhood. It is marked by severe difficulties in communicating, and forming relationships with other people, in developing language, repetitive and limited patterns of behaviour and obsessive resistance to small changes in familiar surroundings. Hence, affected children offer a special challenge to the practising dentist. To meet this challenge, it is necessary to understand the condition and how to manage its varying presentations in different individuals. The purpose of this article is to review the literature on the topic of autism with an emphasis on the dental perspective. Clinical Relevance: A better understanding of the effects of autism on the behaviour of an affected individual provides the dental practitioner with the opportunity to deliver oral healthcare in an empathetic and appropriate manner
68. **Dental findings of a child with Wolf-Hirschhorn syndrome.** Johnston, N. J. and Franklin, D. L. *Int.J.Paediatr.Dent.* 16[2], 139-142. 2006.
Keywords: Developmental Disabilities
Abstract: The case presented is that of a 5-year-old female with Wolf-Hirschhorn syndrome. Dental findings were severe hypodontia, late dental development, taurodontism of the primary molars, microdontia, and spacing. Hypodontia has previously been reported and therefore this case adds to the evidence that hypodontia may be a common feature of this syndrome. It also suggests that other dental anomalies could occur in children with Wolf-Hirschhorn syndrome

69. **Mandating education of dental graduates to provide care to individuals with intellectual and developmental disabilities.** Waldman, H. B. and Perlman, S. P. *Ment.Retard.* 44[3], 184-188. 2006.
Keywords: Developmental Disabilities
Abstract: In 2004, The Commission on Dental Accreditation adopted new standards for dental and dental hygiene education programs to ensure the preparation of practitioners to provide oral health services for persons with special health care needs. The course of action leading to the adoption of the new standards, together with the continuing obstacles of limited government support for dental services and the availability of faculty members to provide the needed dental educational experiences is reviewed. Expanding Health Resources and Services Administration definition of medically underserved areas is presented as one approach to improving the delivery of dental services
70. **Coffin-Lowry syndrome: findings and dental treatment.** Wassersprung, D. and Sarnat, H. *Spec.Care Dentist.* 26[5], 220-224. 2006.
Keywords: Developmental Disabilities
Abstract: Coffin-Lowry Syndrome is characterized by mental retardation, skeletal abnormalities, delayed bone development, short stature, tapered fingers, large ears, orbital hypertelorism, anteverted nares, and a prominent frontal region. This inherited disorder is x-linked and is genetically mapped to the Xp22.2 chromosomal region. This report presents the dental findings of three male members of the same family: an older brother and younger identical twins; all three were first examined at age 10. The father's family came from North Africa and the mother's from Eastern Europe. In addition to the reported typical characteristics of Coffin-Lowry Syndrome, a number of specific dental findings were found in all of the brothers, namely, maxillary protrusion, open bite, two-year retardation in age of eruption, agenesis of the permanent mandibular central incisors in all of the brothers, and a marked oligodontia in the oldest. Despite difficulties in management, the dental treatment for caries and gingivitis could be completed on the brothers without sedation
71. **Craniofacial cephalometric morphology in children with CATCH 22 syndrome.** Heliovaara, A. and Hurmerinta, K. *Orthod.Craniofac.Res.* 9[4], 186-192. 2006.
Keywords: Developmental Disabilities
Abstract: OBJECTIVES: To evaluate cephalometrically the craniofacial, pharyngeal and cervical morphology in children with CATCH 22, and to compare and quantify the findings with age- and sex-matched controls. DESIGN: A retrospective case-control study. SETTING AND SAMPLE POPULATION: Forty-one children (20 girls) with CATCH 22 were compared with age- and sex-matched controls from lateral cephalograms taken at the mean age of 8.5 years (range 5.8-12.9). The deletion of 22q11 was verified by fluorescence in situ hybridization techniques. Thirteen of the children with CATCH 22 had palatal clefts. OUTCOME MEASURE: Linear and angular measurements were obtained from lateral cephalograms. A Student's t-test and a paired Student's t-test were used in the statistical analysis. Standard deviation scores (SDS) were calculated to quantify the variation. RESULTS: Children with CATCH 22 had obtuse cranial base angles and long anterior cranial bases. Their faces were long with increased facial convexity. The maxillae were long but both jaws were retrognathic and the lower jaws posteriorly diverged. The pharynges were wide in the nasopharyngeal area and narrow in the hypopharyngeal area. The development of the hyoid bones was delayed, and hyoid bone and atlas lengths were reduced. The morphology of the children with CATCH 22 with and without a palatal cleft was similar. Despite several statistically significant differences between the children with CATCH 22 and the controls, the SDS did not exceed +/-2 for any of the measurements. CONCLUSION: Children with CATCH 22 have several minor distinctive morphological features in the craniofacial, pharyngeal, and cervical areas
72. **Seckel syndrome associated with oligodontia, microdontia, enamel hypoplasia, delayed eruption, and dentin dysmineralization: a new variant?** De Coster, P. J., Verbeeck, R. M., Holthaus, V., Martens, L. C., and Vral, A. *J.Oral Pathol.Med.* 35[10], 639-641. 2006.
Keywords: Developmental Disabilities
Abstract: Seckel syndrome (SCKL) [OMIM Entry 210600] is a rare, autosomal recessive syndrome, characterized by severe intrauterine and postnatal growth retardation, microcephaly, mental retardation, and typical facial appearance with beaklike protrusion of the midface (bird-headed). Associated findings may include limb anomalies, dislocation of femoral heads, scoliosis, and gastrointestinal malformation. A 14-year-old boy is presented with brain hypoplasia, pachygyria, hydrocephaly, enamel hypoplasia and root dysplasia in the

temporary dentition, and oligodontia, severe microdontia, and delayed eruption of the permanent dentition. The association of SCKL with the above unusual dental findings may represent a new phenotype

73. **Long-term evaluation of orofacial function in children with Down syndrome after treatment with a stimulating plate according to Castillo Morales.** Korbmacher, H. M., Limbrock, J. G., and Kahl-Nieke, B. *J.Clin.Pediatr.Dent.* 30[4], 325-328. 2006.
Keywords: Down Syndrome
Abstract: The aim of this investigation was to evaluate the long-term orofacial development of Down children who received plate therapy according to Castillo Morales in their early childhood. The orofacial development of 27 Down children was documented before and after plate therapy and at a follow-up examination 13 years +/- 6 months after initiation of therapy. The orofacial appearance significantly improved during therapy ($p = 0.00$). During the follow-up, mouth posture remained stable ($p = 0.259$), whereas tongue position further improved ($p = 0.034$). A better long-term development was documented in children with initial severe orofacial dysfunctions
74. **A preventive approach to oral self-mutilation in Lesch-Nyhan syndrome: a case report.** Jeong, T. S., Lee, J. H., Kim, S., Kim, J. H., and Tootla, R. G. *Pediatr.Dent.* 28[4], 341-344. 2006.
Keywords: Lesch-Nyhan Syndrome
Abstract: Lesch-Nyhan syndrome is a rare X-linked recessive disorder of purine metabolism, caused by complete absence of the enzyme hypoxanthine-guanine phosphoribosyl transferase. Persons affected with this incurable disease are developmentally and physically delayed, and suffer from self-injurious behavior. The most typical feature results in partial or total destruction of perioral tissues. The purpose of this paper was to discuss a case of Lesch-Nyhan syndrome with self-mutilative behavior and lip injuries, including some suggestions of a preventive approach avoiding the extraction of teeth. A soft mouthguard fabricated to prevent the destruction of perioral soft tissues and combined psychiatric pharmacologic therapy proved to have satisfactory results
75. **Orthodontic intervention and patients with Down syndrome.** Musich, D. R. *Angle Orthod.* 76[4], 734-735. 2006.
Keywords: Down Syndrome
76. **Microstructure and chemical composition of primary teeth in children with Down syndrome and cerebral palsy.** Keinan, D., Smith, P., and Zilberman, U. *Arch.Oral Biol.* 51[10], 836-843. 2006.
Keywords: Down Syndrome/Cerebral Palsy
Abstract: This study was designed to test the hypothesis that prenatal growth insults leave permanent signs in the developing primary teeth that can be identified in later life. To test this hypothesis we examined exfoliated and extracted lower second primary molars of children with Down syndrome (DS) and cerebral palsy (CP). Teeth of children with no adverse medical history were used as a control group. Informed consent of parents and children was obtained in all cases. On each tooth two thin sections were cut, one bisecting the mesial cusps and one bisecting the distal cusps. Using a light microscope, the width of prenatal enamel and postnatal enamel was measured on each section at standardized locations from the dentin-enamel junction (DEJ) with the neonatal line used to distinguish between prenatal and postnatal enamel. Chemical analysis of each section was carried out using an energy dispersive spectrophotometer (ESR). The Ca/P ratios of enamel and dentin for each cusp were calculated and intercusp and intergroup differences analysed using non-parametric statistical tests. The results showed that significantly less enamel was laid down prenatally in DS and CP teeth than in the control group and that the enamel of the mesial cusps in these groups was less highly mineralised than that of the controls. The results also showed that in DS teeth growth and mineralisation of all cusps was affected. Based on these findings we propose that analysis of exfoliated deciduous teeth in developmentally challenged children may help in identifying the onset and severity of growth insults in utero and its impact on later development
77. **Cockayne's syndrome: a case report. Literature review.** Arenas-Sordo, Mde L., Hernandez-Zamora, E., Montoya-Perez, L. A., and Aldape-Barrios, B. C. *Med.Oral Patol.Oral Cir.Bucal.* 11[3], E236-E238. 2006.
Keywords: Developmental Disabilities
Abstract: Cockayne s syndrome is a genetic disorder with a recessive autosomal inheritance, described first by Cockayne in 1936. Patients with this syndrome present failure to thrive, short stature, premature aging,

neurological alterations, photosensitivity, delayed eruption of the primary teeth, congenitally absent of some permanent teeth, partial macrodontia, atrophy of the alveolar process and caries. It could be caused by two gene mutations, CNK1 (ERCC8) and ERCC6, located on the 5 and 10 chromosomes respectively, causing two variations of Cockayne s syndrome, CS-A, secondary to a ERCC8 mutation and CS-B with ERCC6 mutation, the last one causes hypersensitivity to the ultraviolet light secondary to a DNA repair defect. The syndrome is also associated with mutations of the XPB, XPD and XPG genes. In this report we present a 9 year and 4 month old patient. He had a height of 94 cm, weight of 8.6 Kg, head circumference of 42 cm. and blood pressure of 120/80. Cachectic habitus, kyphosis, microcephaly, oval face, sunken eyes, a thin and beaklike nose, lack of subcutaneous facial fat (especially in the middle of the face), and large ears give the patient a birdlike appearance. It is notorious the photosensitivity in all the sun-exposed skin. The patient also displays delayed psychomotor skills and mental retardation. In the oral cavity we found deficient hygiene, gingivitis, cervical caries, enamel hipoplasia, abnormal position of the upper and inferior lateral incisors, macrodontia of the upper central teeth, the left one presented a caries. In the x-ray we observed congenital absence of 14, 23 and 24 teeth and mandibular hipoplasia. The aim of this review is to show the dentistry community the characteristics of the Cockayne s syndrome by means of a clinical case

78. **Supernumerary teeth and mental retardation: the importance of early surgical intervention.** Cozza, P., Mucedero, M., Ballanti, F., and De Toffol, L. *Eur.J.Paediatr.Dent.* 7[1], 45-49. 2006.

Keywords: Developmental Disabilities

Abstract: AIM: This paper reported a rare case of hyperdontia in a child of 10 years who revealed a mixed dentition and a light mental retardation. MATERIALS AND METHODS: The therapeutic approach has been based on interdisciplinary cooperation between the pediatric dentist, orthodontist and oral surgeon. TC-Dentascan, with a panoramic and occlusal radiographs revealed the presence of two supernumerary teeth in the premaxillary region and clinical examination showed an abnormality of dentoalveolar complex. Both impacted supernumerary teeth were extracted under general anesthesia. Clinical examination revealed that they appeared two premolars in shape with fully formed crowns and partly formed roots. RESULTS: Three months after the extraction of supernumerary teeth there was a spontaneous eruption of permanent central incisors and left lateral incisor. CONCLUSION: The authors emphasized the importance of removal of supernumerary teeth to eliminate the cause of a delayed eruption of permanent teeth

79. **Kabuki syndrome: oral and general features seen in a 2-year-old Chinese boy.** Atar, M., Lee, W., and O'Donnell, D. *Int.J.Paediatr.Dent.* 16[3], 222-226. 2006.

Keywords: Developmental Disabilities

Abstract: This report describes the case of a young Chinese boy with Kabuki syndrome (KS). KS is a congenital condition characterized by multiple anomalies, especially of the face, and is usually associated with mild to moderate mental retardation. The patient presented with the characteristic facial features of KS and some skeletal and neurological anomalies including a butterfly vertebrae with scoliosis, cerebral atrophy, and irregular dentition. Dental examination revealed screwdriver-shaped incisors and a high arched maxilla, features typical of patients with KS, as well as very poor oral hygiene and early childhood caries. This report includes discussion of the aetiology of KS as well as discussion of the long-term prognosis for this particular patient, and patients with KS in general, with consideration of associated dental and medical issues

80. **Genotyping of Streptococcus mutans by using arbitrarily primed polymerase chain reaction in children with Down Syndrome.** Cogulu, D., Sabah, E., Uzel, A., and Ozkinay, F. *Arch.Oral Biol.* 51[3], 177-182. 2006.

Keywords: Down Syndrome

Abstract: OBJECTIVE: The aim of this study was to compare the caries prevalence between Down Syndrome (DS) and non-DS children and to investigate the difference between the genotypes of Streptococcus mutans (S. mutans) colonized in both DS and non-DS groups. DESIGN: Sixty children with DS and 64 non-DS children aged between 7 and 12 years old were included to this study. All erupted teeth were evaluated according to the criteria recommended by the World Health Organization. Unstimulated saliva samples were carried out from the children and cultivated on S. mutans selective Tryptone-yeast-cystine (TYC) agar with 0.2 U/ml bacitracin and 15% sucrose. Molecular typing of S. mutans strains was performed by using arbitrarily primed polymerase chain reaction (AP-PCR) with OPA-05 primer. All data were analysed by using SPSS (SPSS Inc., Chicago, IL, USA) 11.0 software program for windows. RESULTS: The caries index scores were found significantly lower in DS individuals than the non-DS group ($p < 0.05$). The salivary S. mutans levels between DS and non-DS groups did not show significant difference ($p > 0.05$). The difference

between dental caries and salivary *S. mutans* levels also was not statistically significant ($p > 0.05$). According to the results of the AP-PCR typing, all profiles of *S. mutans* which colonized in DS group were different from the control group. The relationship between these different profiles and dental caries prevalence was statistically significant ($p < 0.05$). CONCLUSION: The profiles of *S. mutans* colonized in DS group might be a reason of low caries prevalence

81. **Conscious sedation guidance.** Coulthard, P. *Evid.Based.Dent.* 7[4], 90-91. 2006.

Keywords: Conscious Sedation

Abstract. SCOPE AND PURPOSE: This guidance is intended to promote good clinical practice for the provision in dentistry of conscious sedation that is both safe and effective. It is not a recipe book for sedation and therefore does not include details of drug dosages. The recommendations are applicable to all patients receiving conscious sedation, to facilitate the provision of any type of dental treatment whether it is delivered in a dental practice, a community dental service clinic or a hospital setting. It also covers the provision of conscious sedation for dental treatment provided on a domiciliary basis. Specifically excluded from this guidance, however, are patients who require assisted ventilation, intensive care sedation, premedication for general anaesthesia, postoperative analgesia, sedation in palliative care, night sedation and sedation in the home setting other than for the provision of dental treatment on a domiciliary basis. METHODS: Existing guidelines, relevant systematic reviews, policy documents, legislation or other recommendations were reviewed and appraised for their quality of development, evidence base and applicability to the remit of the guidance under development. To supplement this information, key questions were formulated by the Guidance Development Group and used as the basis for designing systematic literature search strategies to identify further research evidence that may address these questions, including unpublished work where relevant. The following internet sites were searched for guidelines: New Zealand Guidelines Group, Canadian Collaboration on Clinical Practice Guidelines in Dentistry, National Guidelines Clearinghouse, FDI World Dental Federation, National Electronic Library for Health Guideline Finder, and Medline. The Cochrane Library was searched for systematic reviews and Medline, Embase and the Cochrane Library for studies to address key questions. The searches were supplemented by material already known to members of the Guidance Development Group. Titles and abstracts of the identified references were screened for relevance independently by two researchers who were not members of the Guidance Development Group. Disagreement about the inclusion of specific individual references for further consideration was resolved by discussion and if necessary the opinion of a third researcher was sought. Included references were appraised and data was abstracted independently by two researchers using a specifically designed data-abstraction form. This information was then checked for inconsistencies, which were resolved by discussion, and used to construct evidence tables. The evidence tables were presented to the Guidance Development Group to inform their decision-making and their recommendations related to the key question under consideration. Levels of evidence were assigned by two researchers who were not members of the Guidance Development Group. Formulation of each recommendation was achieved by consensus reached through discussion, drawing on the broad range of interest and experience of sedation related to dentistry within the membership of the Guidance Development Group. Consultation and peer review were conducted prior to publication. A draft of the guidance was the subject of discussion at the Dental Sedation Teachers Group annual symposium in April 2004. Subsequently, approximately 100 copies were distributed throughout the UK to a range of professional organisations and individuals who have an interest in dental sedation, and comments were requested. In addition, all dentists in Scotland who recently claimed the National Health Service allowance for treatment with sedation were invited to comment. The consultation draft was also made available on the group's website (www.scottishdental.org/cep). All comments received through this consultation were considered and the guidance was amended accordingly prior to peer review. Further amendments were made in response to feedback from peer reviewers before publication. REVIEW AND UPDATING: The guidance will be reviewed in 2 years' time (2008) and if there have been significant changes it will be updated accordingly. RECOMMENDATIONS: The detailed guidance make 48 recommendations in a range of areas: REFERRAL: Discuss alternative methods of anxiety management with patient and ensure that dental care with sedation meets agreed definition of conscious sedation. ASSESSMENT AND RECORD KEEPING: As part of a thorough assessment, discuss with patient all aspects of their conscious sedation treatment and also provide written instructions. Obtain patient's written consent; maintain comprehensive and contemporaneous patient records. ENVIRONMENT AND FACILITIES: Ensure that environment for sedation is safe and that correct equipment and drugs are provided for each sedation technique used. Ensure that equipment and drugs for dealing with medical

emergencies or complications related to sedation are immediately available. **TRAINING:** Ensure all members of dental team are correctly trained in sedation techniques used, including monitoring of patient during treatment and management of any sedation-related complications. For oral and transmucosal sedation, ensure that sedationist is trained in other titratable techniques and skilled in performing venous cannulation. Ensure that teams giving conscious sedation provide treatment for patient groups they are experienced in managing. **CONSCIOUS SEDATION TECHNIQUES:** For inhalation sedation, ensure that a titrated dose of nitrous oxide is administered using dedicated purpose-designed equipment. Oral, transmucosal and intravenous sedation require pulse oximetry and blood-pressure monitoring. A titrated dose of midazolam is recommended for intravenous sedation. **AFTERCARE:** Monitor patients throughout the recovery period until discharge by sedationist into the care of responsible adult escort who has also been given written postoperative instructions. An escort might not be required after nitrous oxide inhalation sedation. **RESEARCH RECOMMENDATIONS:** A number of recommendations were made regarding the future conduct and reporting of clinical trials. The following areas were highlighted as requiring further high-quality research: Fasting before conscious sedation. Conscious sedation of paediatric dental patients. Dental conscious sedation using combinations of drugs. Dental conscious sedation using continuous infusion. The choice of sedation method for dental patients. Cognitive and behavioural effects of conscious sedation. The interaction of pharmacological and nonpharmacological anxiety management techniques. The complete guidance is available for download at www.scottishdental.org/cep/guidance/dentalsedation.htm

82. **Dental therapeutic practice patterns in the U.S. I. Anesthesia and sedation.** Moore, P. A., Nahouraii, H. S., Zovko, J. G., and Wisniewski, S. R. *Gen.Dent.* 54[2], 92-98. 2006.

Keywords: Anesthesia/Conscious Sedation

Abstract: For this first of a two-part article, anesthetic treatment modalities and specific drugs administered for third molar extractions were assessed to determine current office-based therapeutic practices. Questionnaires were mailed to a random national sample of 850 practicing oral surgeons. Survey design and pilot testing was conducted to assure clarity of questions and usefulness of responses. To maximize the response rate, two follow-up letters were sent to non-responders after the initial mailing. Completed questionnaires were returned by 563 practitioners (66.2% response rate). Practicing oral and maxillofacial surgeons were estimated to have performed an average of 52.7 third molar extraction surgery cases per month, using either general anesthesia (46.3%), intravenous conscious sedation (33.4%), nitrous oxide sedation (5.8%), oral sedation (1.7%), or local anesthesia alone (12.9%). For intravenous conscious sedation, a three-drug technique using midazolam, fentanyl, and propofol was reported most commonly. The most frequently selected local anesthetic formulations were 2% lidocaine, 1:100,000 epinephrine for surgical anesthesia and 0.5% bupivacaine, 1:200,000 epinephrine for postoperative pain management

83. **Effects of metronidazole plus amoxicillin as the only therapy on the microbiological and clinical parameters of untreated chronic periodontitis.** Lopez, N. J., Socransky, S. S., Da, Silva, I, Japlit, M. R., and Haffajee, A. D. *J.Clin.Periodontol.* 33[9], 648-660. 2006.

Keywords: Periodontitis/Anti-Infective Agents

Abstract: AIM: To determine the effect of metronidazole plus amoxicillin (M+A) as the sole therapy, on the subgingival microbiota of chronic periodontitis. MATERIAL AND METHODS: Twenty-two patients with untreated chronic periodontitis were randomly assigned to a group that received M+A for 7 days, or to a group receiving scaling and root planing (SRP) and two placebos. Clinical measurements including sites with plaque, bleeding on probing (BOP), probing depth (PD) and attachment level (AL) were made at baseline, 3, 6, 9 and 12 months. Subgingival plaque samples were taken from all teeth at baseline 3, 6, 9 and 12 months for the counts of 40 subgingival species using checkerboard DNA-DNA hybridization. RESULTS: Mean PD was reduced from 2.80+/-0.45 at baseline to 1.95+/-0.05 at 12 months (P<0.001) and from 2.39+/-0.41 to 1.95+/-0.10 (P<0.001) in the M+A- and SRP-treated patients, respectively. Corresponding values for relative mean AL were 10.07+/-1.30-9.77+/-0.34 (P<0.001) and 9.94+/-0.28-9.77+/-0.26 (P<0.001). Percentage of sites exhibiting BOP were 40.6+/-18.3-14.0+/-1.4 (P<0.001), and 38.5+/-5.1-19.0+/-2.8 (P<0.001) in the M+A and SRP groups, respectively. Mean total DNA probe counts and counts of the majority of the 40 test species were significantly reduced over time in both groups, with no significant differences detected at any time point between groups. At 12 months many of the species were still present at significantly lowered levels compared with their baseline counts in both groups.

CONCLUSIONS: Changes in clinical and microbiological parameters were similar after receiving systemically administered M+A as the sole therapy or after receiving SRP only

84. **A systematic review on the effects of the chlorhexidine chip when used as an adjunct to scaling and root planing in the treatment of chronic periodontitis.** Cosyn, J. and Wyn, I. *J.Periodontol.* 77[2], 257-264. 2006.

Keywords: Periodontitis/Anti-Infective Agents

Abstract: BACKGROUND: Several local antimicrobial agents, such as a bioabsorbable chlorhexidine chip, have been developed to enhance the outcome of non-surgical periodontal therapy. METHODS: Electronic (MEDLINE and Cochrane Oral Health Group Specialized Trials Register) and manual searches were performed to detect studies concerning the use of the chlorhexidine chip as an adjunct to scaling and root planing in the treatment of chronic periodontitis. Only full-text randomized controlled trials published in English up to June 2005 were included. RESULTS: Five studies were finally selected following independent screening by two reviewers. Due to considerable heterogeneity in study design, a qualitative data analysis was performed. Multicenter studies have indicated significantly higher pocket reductions and clinical attachment gains following a combination of mechanical debridement and repeated chlorhexidine chip administration in comparison to scaling and root planing alone. However, some recent studies failed to confirm the additional value of the chlorhexidine chip. A number of interstudy disparities with respect to methodological quality and study design may account for this lack of accordance. CONCLUSIONS: The clinical and microbiological data currently available on the chlorhexidine chip are limited and conflicting. More research is needed to elucidate the additional value of the chlorhexidine chip when used as an adjunct to scaling and root planing

85. **Comparison of the physical and mechanical properties of MTA and portland cement.** Islam, I., Chng, H. K., and Yap, A. U. *J.Endod.* 32[3], 193-197. 2006.

Keywords: Mineral Trioxide Aggregate (MTA):

Abstract: This study evaluated and compared the pH, radiopacity, setting time, solubility, dimensional change, and compressive strength of ProRoot MTA (PMTA), ProRoot MTA (tooth colored formula) (WMTA), white Portland cement (WP), and ordinary Portland cement (OP). The results showed that PMTA and Portland cement have very similar physical properties. However, the radiopacity of Portland cement is much lower than that of PMTA. The compressive strength of PMTA was greater than Portland cement at 28 days. The major constituent of PMTA is Portland cement. Given the low cost of Portland cement and similar properties when compared to PMTA, it is reasonable to consider Portland cement as a possible substitute for PMTA in endodontic applications. However, industrially manufactured Portland cement is not approved currently for use in the United States and therefore no clinical recommendation can be made for its use in the human body. Further in vitro and in vivo tests, especially with regards its biocompatibility, should be conducted to ascertain if it meets the FDA requirements for use as a medical device

86. **Human pulpal response to mineral trioxide aggregate (MTA): a histologic study.** Chacko, V. and Kurikose, S. *J.Clin.Pediatr.Dent.* 30[3], 203-209. 2006.

Keywords: Mineral Trioxide Aggregate (MTA):

Abstract: The purpose of this study was to study the histologic changes in the dental pulp following pulpotomy with Mineral Trioxide Aggregate (MTA) and Calcium hydroxide. Pulpotomies were performed on premolar teeth that were to be extracted for orthodontic reasons. The radicular pulp was capped with either MTA or Calcium hydroxide and restored with IRM. The teeth were extracted at 4 and 8 week intervals, fixed in 10% formalin and then kept in 5% nitric acid for 28 days for demineralization. Longitudinal sections were then prepared and viewed under light microscope. The pulps capped with MTA (at the end of 4 weeks and 8 weeks) showed dentin bridge formation which was more homogenous and continuous with the original dentin when compared to the pulps capped with calcium hydroxide. The pulpal inflammation was also less in the MTA group as compared to the calcium hydroxide group at the end of 4 and 8 weeks

87. **A comparative study between different techniques in non-surgical periodontal treatment.** Forabosco, A., Spinato, S., Grandi, T., and Prini, M. *Minerva Stomatol.* 55[5], 289-296. 2006.

Keywords: Periodontitis/Anti-Infective Agents

Abstract: AIM: This study was carried out to compare a conventional manual instrumentation with an ultrasonic technique (Odontoson M) in scaling and root planing periodontal treatment. The effects of subgingival

irrigation with 10% iodised solution in association with Odontoson M were studied. METHODS: Sixty patients were selected: they were suffering from adult periodontitis, aged between 35 and 65 and non-smokers. They were randomly divided into 3 groups (Gs1, Gs2, Gs3). Gs1 was treated with curettage using Gracey curettes, Gs2 was treated with scaling and root planing using Odontoson M, while in Gs3 scaling and root planing with Odontoson M irrigated with a 10% iodised solution were performed. Clinical parameters (probing depth, bleeding on probing, dental mobility, loss of attachment level) were measured before treatment (T0), after 30 days (T1), after 90 days (T2) and after 120 days (T3). RESULTS: No statistical significant differences between Gs1 and Gs2 were observed. The improvement of clinical parameters in Gs3 was greater and statistical significant differences with other groups treated were recorded. CONCLUSIONS: There are no significant differences between the effectiveness of scaling and root planing with manual instruments and with Odontoson M. The 10% iodised solution used such as topic antiseptic carries out greater effects in not surgical periodontal treatments

88. **Mineral trioxide aggregate pulpotomies: a case series outcomes assessment.** Witherspoon, D. E., Small, J. C., and Harris, G. Z. *J.Am.Dent.Assoc.* 137[5], 610-618. 2006.
Keywords: Mineral Trioxide Aggregate (MTA):
Abstract. BACKGROUND: The greatest threats to developing teeth are dental caries and traumatic injury. A primary goal of all restorative treatment is to maintain pulp vitality so that normal root development or apexogenesis can occur. If pulpal exposure occurs, then a pulpotomy procedure aims to preserve pulp vitality to allow for normal root development. Historically, calcium hydroxide has been the material of choice for pulpotomy procedures. Recently, an alternative material called mineral trioxide aggregate (MTA) has demonstrated the ability to induce hard-tissue formation in pulpal tissue. The authors describe the clinical and radiographic outcome of a series of cases involving the use of MTA in pulpotomy procedures. METHODS: Twenty-three cases in 18 patients were treated with MTA pulpotomy procedures in an endodontic private practice. All of the patients had been referred to the practice for diagnosis and treatment of a symptomatic tooth. All of the authors provided treatment. Pulpal exposures were either due to caries or complicated enamel dentin fractures. RESULTS: Nineteen teeth in 14 patients were available for recall. The mean time of recall was 19.7 months. Of the 19 cases, 15 involved healed teeth, and three involved teeth that were healing. One of 19 cases involved a tooth with persistent disease. CONCLUSIONS: MTA may be useful as a substitute for calcium hydroxide in pulpotomy procedures. Further research, however, is required to clarify this conclusion. CLINICAL IMPLICATIONS: MTA conceivably could replace calcium hydroxide as the material of choice for pulpotomy procedures, if future research continues to show promising results
89. **Special oral hygiene and preventive care for special needs.** Christensen, G. J. *J.Am.Dent.Assoc.* 136[8], 1141-1143. 2005.
Keywords: Special Care Dentistry
Abstract. Many dental patients have special preventive needs related to dental caries and periodontal disease, and most patients with intellectual or physical disabilities have specialized needs. This article suggests that these needs often go overlooked. To best care for patients with these needs, the dental practitioner should identify special oral hygiene needs among his or her patients, provide them with oral hygiene instruction and implement the specific oral hygiene preventive and treatment procedures described here
90. **Oral health status and treatment needs in institutionalized psychiatric patients: one year descriptive cross sectional study.** Kumar, M., Chandu, G. N., and Shafiulla, M. D. *Indian J.Dent.Res.* 17[4], 171-177. 2006.
Keywords: Mental Illness
Abstract. BACKGROUND AND OBJECTIVES: Psychiatric patients are one of the special groups requiring attention as they are often neglected. Oral health is an major determinant of general health for psychiatric patients and may have a low priority in the context of mental illness. The present study was conducted to assess the oral health status and treatment needs of institutionalized psychiatric patients of Davangere. METHODS: 220 psychiatric patients admitted in two general hospitals of Davangere during the period of one year were included in the study. The oral health status was evaluated with respect to caries, oral hygiene, and periodontal status. RESULTS: Of the 180 examined with the response rate of 81.8%. 58.3% were males, mean age was 36.7 years, 57.8% had < 1 year of mental illness with a mean of 2.2 years, and 90% were self-sufficient. The multiple logistic regression analysis showed that the mean DMFT (0.92) increased with age, duration of mental illness, and irregularity of oral hygiene habits (P<0.001). Mean OHI-

S score was 3.3 and multiple logistic regression analysis showed that the mean OHI-S score increased with age ($P < 0.001$). The multiple logistic regression analysis showed that the CPI score increased with age, duration of mental illness, and degree of helplessness ($P < 0.001$). **INTERPRETATION AND CONCLUSION:** The findings of this study demonstrates low caries prevalence, poor oral hygiene, and extensive unmet needs for dental treatment

91. **The oral health of individuals with dementia in nursing homes.** Adam, H. and Preston, A. J. *Gerodontology*. 23[2], 99-105. 2006.
Keywords: Dementia
Abstract: **OBJECTIVE:** To determine if moderate to severe dementia has an effect on the oral health of individuals resident in nursing homes. **BACKGROUND:** A significant proportion of the elderly population lives in nursing homes and suffers from varying degrees of dementia. Dementia might affect an individual's ability to implement oral care. Previous work in this area has focused on individuals with mild dementia living in the community setting. **MATERIAL AND METHODS:** Two matched cohorts of subjects resident in four nursing homes in Cheshire were recruited ($n=135$). One cohort's subjects were deemed to have no or mild dementia, whereas the other cohort's subjects were deemed to have moderate to severe dementia. Oral parameters were scored, including Decayed, Missing, Filled Teeth (DMFT) scoring, dental deposit scoring, denture assessment and the noting of any other pathology. **RESULTS:** There was a statistically significant difference in the relative level of dementia of the subjects between the two cohorts ($p < 0.01$, Student's t-test). The DMFT scores were similar for both groups. The mean number (\pm SD) of decayed and missing teeth for the no/mild dementia group was 1.11 (± 3.42) and 28.22 (± 6.64), whilst that of the moderate/severe dementia cohort was 0.80 (± 1.87) and 27.28 (± 7.73), respectively. Eleven per cent of the moderate/severe dementia cohort wore an upper denture alone as compared with 16% in the no/mild dementia group. **Conclusion:** For individuals resident in nursing homes, moderate to severe dementia might have a deleterious effect on oral health. Further work in this area is required
92. **A comparison of the gingival health of children with Down syndrome to healthy children residing in an institution.** Morinushi, T., Lopatin, D. E., Nakao, R., and Kinjyo, S. *Spec.Care Dentist*. 26[1], 13-19. 2006.
Keywords: Down Syndrome
Abstract: The purpose of this study was to compare the onset and severity of gingivitis in children with Down syndrome, when compared to a healthy control group of children. The subjects included 41 children with Down syndrome ages two to 14 years (mean age: 7.6 years) and 112 age-matched healthy controls. We assessed the gingival health of all subjects using the gingival inflammation (M-PMA) index and periodontal probing depth (PD). Children were divided into three age categories: < 5 years (AI), 5 to < 10 years (AII), and 10 to < 17 years (AIII). Supragingival plaque was measured using the Oral Hygiene Index (OHI) and the subjects were screened with the BANA test (Perioscan-Oral-B). Measurement of the M-PMA index in the healthy children showed an age-related increase ($F = 10.369$, $p < 0.001$), and the M-PMA index at the younger age group < 5 year (AI) was significantly lower than that for the other two age groups AII or AIII ($p < 0.005$, $p < 0.001$). In contrast, the M-PMA index values at AI and AIII in the subjects with Down syndrome were significantly higher than those for healthy children ($p < 0.001$, $p < 0.001$). Both groups had an age-related increase in PD ($F = 3.388$, $p < 0.05$ & $F = 10.806$, $p < 0.001$), and PD at AIII was significantly higher than that at AI in both groups ($p < 0.01$, $p < 0.001$). The children with Down syndrome showed an age-related increase in the BANA test score ($F = 3.452$, $p < 0.05$), and the BANA test score at AIII was significantly higher than that at AI ($p < 0.02$). The BANA test score in the healthy children was not age-related but was significantly higher than that in the children with Down syndrome ($p < 0.02$, $p < 0.05$)
93. **Fetal alcohol syndrome and developing craniofacial and dental structures--a review.** Sant'Anna, L. B. and Tosello, D. O. *Orthod.Craniofac.Res.* 9[4], 172-185. 2006.
Keywords: Developmental Disabilities
Abstract: **OBJECTIVES:** Fetal alcohol syndrome (FAS) is a collection of signs and symptoms seen in children exposed to alcohol in the prenatal period. It is characterized mainly by a distinct pattern of craniofacial malformations, physical and mental retardation. However, with the increased incidence of FAS, there is a great variation in the clinical features of FAS. **DESIGN:** Narrative review. **RESULTS:** This review describes data from clinical and experimental studies, and in vitro models. Experimental studies have shown that alcohol has a direct toxic effect on the ectodermal and mesodermal cells of the developing embryo, particularly in the cells destined to give rise to dentofacial structures (i.e. cranial neural crest cells). Other

effects, such as, abnormal pattern of cranial and mandibular growth and altered odontogenesis are described in detail. The exact mechanism by which alcohol induces its teratogenic effects remains still unknown. The possible mechanisms are outlined here, with an emphasis on the developing face and tooth. Possible future research directions and treatment strategies are also discussed. **CONCLUSION:** Early identification of children affected by prenatal alcohol exposure leads to interventions, services, and improved outcomes. FAS can be prevented with the elimination of alcohol consumption during pregnancy. We need to provide education, target high-risk groups, and make this issue a high priority in terms of public health

94. **Foetal alcohol syndrome: a dental and skeletal age analysis of patients and controls.** Naidoo, S., Norval, G., Swanevelde, S., and Lombard, C. *Eur.J.Orthod.* 28[3], 247-253. 2006.

Keywords: Developmental Disabilities

Abstract: Foetal alcohol syndrome (FAS) consists of multisystem abnormalities and is caused by the excessive intake of alcohol during pregnancy. The teratogenic effect of alcohol on the human foetus has now been established beyond reasonable doubt and FAS is one of the most important human teratogenic conditions known today. The purpose of this study was to assess the dental age (DA) and skeletal age (SA) of children with FAS and compare them with matched controls. The samples of 90 children diagnosed with FAS and 90 controls were matched for age, gender, and social class. The mean chronological age (CA) of the FAS subjects was 8.95 years, with the controls slightly older at 9.04 years. This difference was not significant. Dental maturity was determined by assessing the stage of tooth formation and SA assessment was made from hand-wrist radiographs for the patients and controls by assigning a SA and comparing it with standard plates. The means and standard deviations of CA and DA for the stages of calcification were calculated and the Pearson ranked order correlation coefficient was applied to measure the associations between skeletal maturity indicators and DA. t-tests were used to test for group differences between independent groups, and paired t-tests to determine paired group differences. This study provided evidence of a positive association between DA and SA in both the FAS children and the controls. The data suggest that both DA and SA may be a reflection of general somatic growth. It must be acknowledged that growth of individuals is often irregular, when any norms of development based on central tendencies and variabilities of healthy children are applied. Some aspects of growth and development for healthy children may show a variable pattern of growth. Therefore, correlation of these aspects of growth and development will often not show the degree of correlation that theoretically exists between different areas of growth and development. A more complete appraisal of the entire skeleton and an evaluation of the entire dentition, rather than just the mandibular teeth, might improve the correlation between the variables

95. **Oral health status of children with syndromic craniosynostosis.** Dalben, Gda S., Costa, B., and Gomide, M. R. *Oral Health Prev.Dent.* 4[3], 173-179. 2006.

Keywords: Developmental Disabilities

Abstract: **OBJECTIVE:** To gain more information on the oral health status of subjects with syndromic craniosynostosis. **DESIGN:** A cross-sectional study. **MATERIALS AND METHODS:** The present study took place at the Hospital for Rehabilitation of Craniofacial Anomalies of University of Sao Paulo (HRAC-USP). The sample was 19 patients with syndromic craniosynostosis (10 Apert, 5 Crouzon, 2 Pfeiffer and 2 Saethre-Chotzen), aged 5 to 15 years. An assessment of plaque, caries and gingival indices, and evaluation of the efficacy of toothbrushing was carried out. The measurements included PHP index, dmft and DMFT indices, gingival index, comparison of PHP before and after non-supervised toothbrushing and between individuals with and without severe syndactyly. **RESULTS:** The patients displayed high plaque index and poor efficacy of toothbrushing, regardless of the presence of severe syndactyly; despite the plaque accumulation, the gingival index was not proportionally high. There was predominance of the D component for the DMFT index, which combined with the need for restorative treatment in 42.1% of the patients indicates poor access to dental care by these patients. **CONCLUSIONS:** The results show the need for a dental follow-up programme for these patients. Carers should be informed of the importance in aiding these patients during accomplishment of oral hygiene at home

96. **Clinical evaluation of an ionic tooth brush on oral hygiene status, gingival status, and microbial parameter.** Deshmukh, J., Vandana, K. L., Chandrashekar, K. T., and Savitha, B. *Indian J.Dent.Res.* 17[2], 74-77. 2006.

Keywords: Toothbrush

Abstract: It has long been recognised that the presence of dental plaque leads to gingivitis and periodontal disease, as well as dental caries. Today tooth brushing is the most widely accepted method of removing plaque. Hence this present clinical study was undertaken to evaluate the effectiveness of an ionic toothbrush on oral hygiene status. For this study, 20 dental students in the age group of 18-20 years were included. All the subjects after undergoing dental prophylaxis were then provided with ionic toothbrushes, either active (equipped with lithium battery) or inactive (without lithium battery). Plaque index and gingival bleeding index were examined at 7th, 14th, and 21st day. Microbial assessment was done for detection of colony forming units (CFU) from the plaque samples which were collected on 0 day and 21st day, both before brushing and after brushing. Results shown a significant reduction in all the parameters and the reduction was more significant in active and inactive ionic toothbrush users. It was concluded that both active and inactive ionic toothbrushes reduced the plaque index and gingival bleeding index scores significantly and active ionic tooth brushes were more effective as compared to inactive ionic toothbrushes. There was no soft tissue trauma following the use of both type of toothbrushes, which showed that ionic toothbrushes were equally safe for regular long-term use

97. **Clinical efficacy of flossing versus use of antimicrobial rinses.** Zimmer, S., Kolbe, C., Kaiser, G., Krage, T., Ommerborn, M., and Barthel, C. *J.Periodontol.* 77[8], 1380-1385. 2006.

Keywords: Anti-Infective Agents/Flossing

Abstract: BACKGROUND: Dental floss is only used by a small part of the population on a daily basis. Therefore, an easy, applicable alternative is needed. This alternative could be a mouthrinse with antimicrobial activity for daily use. The aim of the present study was to evaluate the efficacy of two mouthrinses in reducing interdental plaque and gingivitis compared to dental floss. METHODS: A total of 156 healthy volunteers were randomly assigned to the following groups: 1) toothbrushing and rinsing (0.06% chlorhexidine and 0.025% fluoride); 2) toothbrushing and rinsing (0.1% cetylpyridiniumchloride and 0.025% fluoride); 3) toothbrushing and flossing; and 4) toothbrushing only (N = 39 subjects in each group). At baseline, the modified proximal plaque index (MPPI) and papillary bleeding index (PBI) were recorded. Thereafter, subjects had to brush in the usual manner during 8 weeks. Additionally, test groups had to rinse once a day (groups 1 and 2: 30 seconds) or to floss (group 3). Eight weeks after baseline, indices were recorded again and improvements were calculated. Analysis of variance (ANOVA) and the Bonferroni test served for statistical analysis. RESULTS: After 8 weeks, reductions for all indices were found in all groups (P <0.05). With respect to the MPPI, mouthrinse groups performed better than the control and floss groups: 1) 0.73; 2) 0.82; 3) 0.40; and 4) 0.32 (P <0.05). The PBI showed no statistically significant difference between groups: 1) 0.46; 2); 0.50; 3); 0.42; and 4) 0.37. CONCLUSION: The results suggest that, in combination with toothbrushing, daily use of the tested mouthrinses may result in a higher interproximal plaque reduction than daily flossing

98. **Oral health status of children with treacher Collins syndrome.** da Silva, Dalben G., Teixeira das, Neves L., and Ribeiro, Gomide M. *Spec.Care Dentist.* 26[2], 71-75. 2006.

Keywords: Developmental Disabilities

Abstract: There is a lack of data on the oral health status of individuals with craniofacial syndromes. A group of 15 children with Treacher Collins syndrome, aged 5 to 15 years old, was examined and evaluated for plaque, caries and gingival problems. The ability of the patients to clean their teeth was also investigated. A high plaque index and poor efficacy of tooth-brushing was recorded. The caries and gingival indexes were not proportionally as high as the plaque accumulation. There was no association between the gingival index and presence of mouth breathing. There was predominance of the D component in both the dmft and DMFT indexes; this was associated with a need for restorative dental treatment in 60% of the patients, which indicated the need for dental care for these patients. Caretakers should be informed of the importance of oral health and oral hygiene and encouraged to take responsibility for the oral care of the children living at home