

12 January 1998

MEMORANDUM FOR USAF Preventive Dentistry Officers

FROM: TSCOHS/PMB/AFRRI/LOG  
USUHS  
4301 Jones Bridge Road  
Bethesda MD 20814-4799

SUBJECT: Preventive Dentistry Update #16

1. **Military Consultant to the USAF Surgeon General for Dental Public Health.** Recently I was appointed to this position which includes serving as an advisor in preventive dentistry to HQ USAF/SGD and conducting the Air Force Preventive Dentistry Course. Our efforts in preventing oral diseases has been commendable, however there are areas where we can still improve. I am confident that we will be more effective in preventing oral diseases and improving the health of our beneficiaries. There are several excellent preventive dentistry programs world-wide and as I interact with the dental officers responsible for these programs their expertise is evident. We can all learn from one another and I encourage each of you to forward your ideas and concerns to my office.

2. **The 1998 Air Force Preventive Dentistry Course.** This year the Preventive Dentistry Course will be held in conjunction with the Air Force World Wide Prevention Conference in New Orleans Louisiana, March 9-13, 1998. This conference will provide an excellent opportunity for us to share information with other health care professionals on prevention. The theme of the conference is "Predict, Prevent and Manage". There will be specific breakout sessions for oral health care providers. Some of the topics that will be covered in these sessions are Periodontal Risk Factors, Medical Model of Caries, Oral Cancer Screening Exams, Smokeless Tobacco Lesions, Update on Fluorides and Sealants/Preventive Resins. The location is at the Raddison Hotel, 1500 Canal St., New Orleans, Louisiana. There are 15 funded quotas that have been distributed to the commands. There are a limited number of locally funded slots available for this course. Those wishing to attend using local funds should contact Lt. Colonel Schumacher, Dental Education Officer, at DSN 487-3619.

3. **Dental Sealants.** I believe that we have the opportunity to use this preventive technique more effectively to prevent dental caries. The goal of our dental patient programs is to achieve and maintain optimal oral health, which includes the prevention of oral diseases and when treatment is necessary, conservation of tooth structure consistent with patient desires. **Prevention** of dental caries is better than treatment and sound, non-diseased teeth, are more highly valued than adequately restored teeth.

Over the past few decades a number of changes have taken place regarding the epidemiology of caries. The prevalence of the disease has declined, its relative distribution on different tooth surfaces has changed, and the rate of progression of the disease has slowed. There has been a reduction in both smooth-surface and pit and fissure caries, but the observed reductions have been greater for smooth-surface caries. As a result of this disproportionate reduction, pit and fissure caries now accounts for an increasing proportion of total caries prevalence.

There is evidence that there is a significant risk for primary caries, especially pit and fissure caries, to extend beyond early adolescence into early adulthood. Occlusal surfaces of the first and second molars are the surfaces at highest risk for caries. Sealants are an extremely valuable technology in preventing pit and fissure caries on occlusal surfaces of teeth. As we all know fluorides have been very effective in reducing the prevalence of smooth-surface caries.

The Healthy People 2000 objective that 50 percent of 8 and 14 year-old children should have pit and fissure sealants on one or more molar teeth is far from being achieved. Using data from the 1994 Tri-Service Comprehensive Oral Health Survey (TSCOHS) the majority of our recruits (81%) do not have even one sealant present on their molars when they enter the Air Force. The 1994 TSCOHS also showed that active duty Air Force personnel ages 17-24 have more sealants present (19%), when compared to active duty members of the other services, Army (9%), and Navy (12%). This survey also showed that Air Force dentists treatment plan their patients for placement of sealants more frequently than dentists from the other services. These findings are encouraging but I definitely feel that we can improve. We need to identify teeth that are at high risk for occlusal caries and make sure that sealants are placed. Whenever we have teeth isolated under a rubber dam we should place sealants on those teeth at high risk for occlusal caries. This requires that we have sealants readily available in the dental treatment rooms.

Recent studies have shown that for young adults aged 17-25 the incidence of occlusal caries is approximately 30%. Placement of sealants on these susceptible molars can prevent the occlusal caries that would have occurred if this intervention was not taken. The use of preventive resin restorations for those teeth that have early caries confined to the enamel is another preventive technique that should be emphasized.

Sealants are a vital component of caries prevention and ideally should be used in combination with patient education, effective personal oral hygiene, fluorides, and regular dental visits. References on dental sealants are at Attachment 1.

**4. Caries Risk Assessment.** The American Dental Association published a special supplement titled Caries Diagnosis and Risk Assessment (JADA Vol.126, June 1995), which provides excellent guidance for caries diagnosis and individualized risk assessment. This supplement should be readily available for oral health providers at every clinic. All providers need to be aware of the guidelines for prescribing fluoride supplements which will assist in reducing the risk for mild fluorosis.

**5. Tobacco Cessation.** As health care providers we are required to counsel patients as to the hazards of using tobacco products. We should also be active in assisting these patients to quit using this dangerous product. The smoking (I prefer the term tobacco) cessation programs at our bases provide an excellent opportunity for providers to be even more involved in this health promoting activity.

**6. Enlisted Training.** The past 18 months have brought about many significant changes in how preventive dentistry training is managed in the Air Force. Following the guidance of our senior enlisted managers and the professional input of our credentialed providers and experienced therapists, the needs of our patients and technicians can now be better addressed with structured training programs in preventive dentistry that realistically support the medical service goal to transition from intervention to prevention. The bulk of the work completed for these improvements has been done by a cooperative team of training specialists at two locations - the 381st Training Support Squadron at Sheppard AFB and the 59th Medical Wing/Dental Directorate at Lackland AFB. Also, key management support has been provided by HQ USAF/SGD and AETC/SGD and a multitude of leaders and managers throughout the Dental Corps. Many efforts have occurred simultaneously, and the interdependence of all the key players has been a great example of highly productive teamwork. First of all, a Qualification Training Package (QTP 4Y051-4) has been developed to provide a standard method of structuring training to meet the new 5 Level core tasks required in the Career Field Education and Training Plan (CFETP). This QTP outlines how to locally train and evaluate prophylaxis technicians at a novice or beginning level of competence. Following this entry level of preventive dentistry training, prophylaxis technicians should be able to provide uncomplicated prophylaxis treatments and the initial appointed encounter for complex cases that require follow-up with more experienced therapists or doctors. The Advanced Oral Hygiene Course (AOHC)

has been brought on-line to provide further training for experienced prophylaxis technicians in order to meet the challenge of treating more complicated cases who have active caries and/or periodontitis. This is a 24 academic day course hosted seven times each year by 59th MW/DSCTD, Lackland AFB. This course is designed to take students that have completed their 5 skill level, SRA and above who are on their second enlistment, and expand their basic preventive dentistry skills to allow competent treatment of more complex patients who need active and supportive therapy. Students also have the opportunity to complete the AETC Train the Trainer Course while in residence so that they can return to their home bases and instruct other students on the QTP-4. The course confers nine hours of CCAF credit. The 56 slots available annually for AOHC are allocated by the Dental Career Field Manager (HQ USAF/SGD) to each command. Individual selections are managed by the Command Dental Managers using input from their bases. The graduate of the AOHC should be considered partially proficient (needs only help on hardest parts of the task) for most key dental hygiene tasks such as subgingival scaling and root planing. Ongoing training for eleven months in the Advanced Oral Hygiene Practicum (AOHP) is highly recommended, but not required, in order for each graduate to develop competence in the key therapeutic skills. It is anticipated that the Practicum training plan will be finally implemented in February 1998. It will most likely confer 9 hours of CCAF credit for those that complete it, and a grand fathering of credit for those that have completed the Periodontal Therapist Part 2 will be given, these periodontal therapist's should contact MSGT Kucki for details. What about dental hygiene certification? The future can only tell what resources can be allocated to allow active duty AF students to pursue this career. Efforts are being made to have the Advanced Oral Hygiene Course and Practicum recognized by accredited institutions for partial completion of certification. In the meantime, it would be prudent for all those that are interested in pursuing dental hygiene certification to locally complete all pre-requisite courses. Although exact pre-requisites may vary with each institution, there is a very common core grouping of 3 credit hours in English Composition and 4 credit hours with laboratories in the following four subjects: General Chemistry, Anatomy, Physiology, and Microbiology. Great transitions have been occurring in the enlisted training fields of the Air Force, and preventive dentistry has played a very active part with many quality improvements evident. The core values of integrity, service before self, and excellence in all that we do shine through the ongoing restructuring of how our technicians are trained to meet the needs of our patients. An important step is to get feedback from the field. If you have any questions or comments about how the courses are designed or managed, please let us know by calling the Advanced Oral Hygiene Course staff at DSN 554-6392/6469, the 381st at DSN 736-6661, or funnel your inquiry through your command structure.

7. **Administrative Items.** If you have any questions or comments please feel free to contact me by e-mail at [gmarti@mx3.usuhs.mil](mailto:gmarti@mx3.usuhs.mil) or by phone at DSN 285-6972

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