GUIDELINES FOR A CORRECTIONAL DENTAL HEALTH CARE SYSTEM

By Michael Adu-Tutu, DDS, MBA, CCHP-A, and Thomas E. Shields, II, DDS, CCHP

Before incarceration, many inmates receive little dental care and thus tend to have poor oral health when they enter jail or prison. Studies have demonstrated that, compared to the noninstitutionalized U.S. adult population, inmates have eight times more untreated decayed teeth (Boyer, Nielsen-Thompson, & Hill, 2002).

It is important that correctional institutions provide basic on-site dental services including extractions, surface restorations, prostheses, prophylaxis, and other preventive measures (Anno, 2001). Because there is a significant correlation between poor oral health and systemic health problems such as heart disease and diabetes, it is important that dental services are commensurate to the medical services system. In addition, the failure to restore a tooth to function or to relieve pain and suffering could result in a judicial finding of unconstitutional care (Rold, 2003). This document describes the necessary elements for a correctional dental health care system.

Policies and Procedures

All correctional systems, regardless of size, should have policies and procedures on oral health services available to their inmates. The policies and procedures should address issues such as access to care, intake screening, oral examination, dental sick call, supplies and equipment, staffing levels, and quality improvement programming. The goals for a correctional dental program include pain relief, elimination of infection and disease, restoration of function (Anno, 2001), and patient education and prevention (Makrides, Costa, Hickey, Woods, & Bajuscak, 2006).

Screening, Examination, and Delivery of Care

Intake Screening

Correctional health systems should have adequate dental care resources to avoid unnecessary delays in the delivery of oral health care. Intake oral screening should be performed within 7 days in prisons and juvenile confinement and detention facilities and within 14 days in jails.

Incarcerated individuals tend to have oral soft tissue pathology that is more prevalent and varied than is seen in the noninstitutionalized population. This leads to inflamed and significant periodontal disease, which could be very serious. Consequently, if possible, a dentist should conduct the intake oral screening as the first measure in determining the extent of periodontal disease in inmates. However, in many settings this is not practical and in that case a qualified health care professional who is trained by a licensed dentist should perform the intake oral screening.

The screening should include visual observation of oral hard and soft tissues, placement and status of the teeth, and coloration and position of the tongue and uvula. The screener should make notation of any obvious or gross abnormalities that require immediate referral to a dentist. Intake oral screening results should be documented on a form developed for this purpose. The screener also should provide instructions in oral hygiene and preventive oral education.

Oral Examination

A comprehensive oral examination should be performed by a licensed dentist. Although some state practice acts permit dental hygienists to complete a comprehensive oral examination, National Commission on Correctional Health Care (NCCHC) standards require that only a licensed dentist may perform this examination (E-06 Oral Care).

The NCCHC standards require that oral examination be performed within 30 days of an inmate's admission to a prison, and within 12 months in a jail. In juvenile confinement and detention facilities, the examination must occur within 60 days. Quality management assessments should monitor patient care to verify the timeliness of the examination.

The examination should include review of the inmate's medical history; current complaints (if any); extraoral head and neck examination; charting of existing, missing, and decayed teeth; periodontal screening; and examination of intraoral soft tissue. When deemed appropriate, radiographs should be taken and a dental treatment plan should be developed. The examination findings should be documented. In addition, significant medical history findings regarding medication allergies, systemic diseases, and necessary precautions to be taken in treating the inmate should be noted.

Emergency Oral Health Care

Correctional facilities should have a system for responding to acute oral and maxillofacial emergencies. Dental emergencies such as maxillofacial trauma, acute oral infections involving orofacial spaces, and uncontrolled bleeding following dental extractions could be life-threatening and are common in correctional facilities.

Dental conditions such as toothache, pain after dental extraction, and abscess not involving the orofacial spaces may be painful and are usually classified as urgent dental needs that do not requiring emergency care.

Dental emergencies should receive immediate attention, whereas urgent dental needs could be evaluated within 72 hours of receiving an inmate's complaint.

Correctional health systems should train their nondental health professionals in the identification and referral of emergency dental needs. In addition, nondental health professionals should be trained to identify and manage urgent dental needs to avoid unnecessary delay of care.

Dental Sick Call

Correctional health systems should have a mechanism by which each inmate may communicate his or her dental needs to health care staff on a daily basis. This mechanism includes a process to access dental care, timely disposition of requests, and a priority-of-needs referral system (Anno, 2001; *Dean v. Coughlin,* 1985).

Access to dental care is controlled by health and not correctional staff. However, in cases of urgency, emergency, or when health staff are not present, correctional staff should have the responsibility and training to communicate an inmate's dental need to the appropriate professionals.

Each day, health staff should review all inmate dental sick-call requests and determine the appropriate disposition. Referrals of dental complaints should be based on a priority-of-needs system that directs the disposition of requests. The priority-of-needs system should be approved by a dentist. Inmates should be informed of the health unit or dental clinic response to their request in a timely manner (*Dean v. Coughlin*, 1985).

Clinical Services

Clinical services of a correctional dental program include preventive, oral surgery, restorative (operative), endodontic, periodontic, prosthetics, and orthodontic dentistry. The type of correctional institution will dictate the level of on-site service; for example, a short-term confinement facility may not have the capacity to perform restorative or endodontic dentistry on-site, yet such services should be available to inmates when clinically indicated. Below is a guideline for the implementation of these services.

Preventive Dentistry

Preventive dentistry deals with clinical tests, procedures, and dental education programs with the goal of preventing and eliminating dental caries, periodontal diseases, oral disease, and systemic complications due to poor oral health. In fact, most gingivitis, periodontal disease, and tooth loss could be prevented since they are caused by local factors that are accessible, correctable, and controllable. For example, dental plaque, a significant cause of oral disease, can be removed and controlled.

The cornerstone of preventive dentistry is patient education. It takes a comprehensive approach by medical, nursing, and dental staff to impress upon inmates the need to take an active role in maintaining their oral health. If an inmate does not actively maintain dental hygiene, the time, effort, and money spent on preventive dentistry could be squandered.

Inmates should receive instruction on oral hygiene during their intake screening or orientation to the facility. This is usually done on a one-to-one basis by health or dental staff who can demonstrate, explain, and answer questions about oral hygiene techniques. In some correctional health systems, inmates view a videotape on proper oral hygiene and staff answer questions.

Dental hygiene instructions should address how and when to use a toothbrush with toothpaste and how to remove interdental plaque. All inmates should have access to an acceptable soft-bristled adult toothbrush, acceptable toothpaste containing fluoride, and interdental cleaning devices. The commissary could stock interdental cleaning devices (e.g., floss picks, proxy brushes, floss, and precut floss) for inmate use. Inmates should receive pamphlets or brochures on appropriate dental hygiene. It is also recommended that dental clinics display preventive oral hygiene posters that promote the message of participating in one's oral health. Educational materials can be obtained from a number of resources, such as the American Dental Association (www.ada.org) and the American Dental Hygienists' Association (www.adha.org). Inmates should also receive instruction on tobacco cessation.

Preventive dental education should continue beyond intake and orientation. Upon visiting the medical or dental clinics, inmates should receive reminders about oral hygiene instructions. These instructions should be reinforced throughout the dental treatment plan.

The topical application of fluoride should be part of the dental treatment plan for all confined youth and, when deemed necessary by the treating dentist, for adult inmates. Finally, dental prophylaxis (cleaning) should be available to juveniles and adults in long-term facilities such as prisons.

Policies on preventive dentistry and the frequency of routine dental prophylaxis should be established.

Oral Surgery

Exodontia refers to the extraction of teeth; given inmates' general lack of prior dental care, extractions are a significant component of correctional dental services. Although every reasonable effort should be made to restore a tooth, an extraction may be indicated. When diagnostic or treatment challenges for oral and maxillofacial services are beyond the treating dentist's scope of practice, a referral to an oral surgeon is appropriate.

A periapical or panorex radiograph should be used to visualize root structure, anatomical landmarks, and pathology before an extraction is done. The inmate's health history should be obtained and reviewed. Pertinent medical information may include laboratory values and consultation with physicians. Vital signs such as blood pressure and pulse should also be noted. A written informed consent should be obtained from the inmate before any extraction is attempted.

Once the extraction is completed, written postoperative instructions should be given to the inmate and documented in the dental record. The amount of anesthetic and other medications used or prescribed to control pain and infection should be documented in the dental record. Surgical complications, such as significant blood loss or a retained fractured root tip, should be noted in the chart. The inmate should be

informed of the complication and the expected prognosis or whether further treatment is needed to manage the complication. There should be a system to notify medical staff about potential postoperative complications including instructions on what to do should they occur. Any ulcerative lesion that has not responded to treatment in 10 to14 days postsurgery should be biopsied or referred for diagnosis and treatment.

A log should be kept and regularly reviewed to determine whether referrals have been made and kept in a timely manner. The consulting dentist's reports should be reviewed by the treating dentist and discussed with the inmate. This review and discussion should be documented. If the treating dentist deems it necessary to deviate from the consulting dentist's recommendation(s), he or she should document the reason for the deviation in the inmate's records. Any inmate who refuses the recommended treatment should sign a refusal of treatment form. The inmate should be advised of the procedures to follow if he or she decides to not seek the recommended care.

Restorative (Operative) Dentistry

Restorative or operative dentistry involves the restitution of hard tooth structure that has eroded due to decay, attrition, or trauma. Although restorative dental care is usually classified as routine, correctional systems need to place significant importance on providing such care to their inmates. Delaying or deferring restorative care in a correctional setting simply leads to an increase of oral pain, infection, or tooth loss. As a result, dental services become inundated with emergency dental sick-call requests and more procedures to replace lost teeth with removable prosthetics.

Treatment plans should use current X-rays (6 months to 1 year) and include a full mouth series or panoramic X-ray when indicated. To develop a restorative treatment plan, the treating dentist should have appropriate bite-wing radiographs and restorative materials that meet American Dental Association and state standards. In addition, when selecting restorative materials, the long-term functionality and durability of the material should be considered, as should the inmate's age, general health, and oral hygiene. Where dental amalgam restorative materials are used, best environmental practices such as the use of amalgam separators and encapsulated amalgam should be implemented to reduce environmental mercury contamination.

Endodontics

Endodontic dentistry treats the inside of the tooth and is commonly known as a root canal. Prison and jail health systems should develop policies on the provision of endodontic therapy in their facilities.

Several factors should be considered before undertaking endodontic dentistry. First, endodontic therapy should be considered if retention of the tooth will enhance arch integrity or if the tooth is a crucial abutment for a partial denture or a bridge. Second, any tooth considered for endodontic therapy should have adequate periodontal support and a good prognosis of restorability and long-term retention. Third, dental health services should have the capacity to obtain pre- and postoperative radiographs. Finally, the tooth should be functional.

Inmates should be counseled and informed of the benefits and risks of the procedure and should sign a consent form. Preferably, all routine endodontic therapy should be completed at the local facility where it was started; however, complications that cannot be treated at the local facility should be referred to an endodontic specialist.

Periodontics

Periodontitis is a chronic bacterial infection of the oral cavity that is marked by swollen and inflamed gums (gingivitis). Periodontal disease is the most prevalent disease among humans and is linked to obesity, smoking, diabetes mellitus, osteoporosis, heart disease, stroke, pulmonary infections, and renal disease. Periodontal disease is a chronic condition and is classified among the routine care needs of inmates. However, numerous studies, including the Dental Atherosclerosis Risk in Communities study, have

established periodontal disease as a risk factor for atherosclerotic cardiovascular disease and chronic kidney disease.

Oral hygiene instruction should be reinforced throughout all levels of dental care. This includes one-on-one instructions given during intake examination or dental hygiene appointment, and emphasis on adequate self-care at subsequent dental appointments. Group oral hygiene instruction presents an additional opportunity to emphasize the need for oral hygiene.

A periodontal evaluation, such as a periodontal screening and recording (PSR), should be part of all comprehensive dental examinations. PSR is done at the treatment planning appointment, with results recorded on the designated form. At a minimum, noninvasive periodontal care such as scaling and root planing should be available to inmates and is to be used where periodontal pockets exceed 3 millimeters. It should be stressed to the patient that the first step of any definitive dental treatment is the practice of adequate daily oral hygiene.

Orthodontics

Orthodontics is treatment to correct malocclusions by straightening top teeth to line up with bottom teeth. Orthodontic care usually is not available in correctional settings. However, correctional systems should have policies and guidelines to manage inmates who enter their facilities while receiving active orthodontic care with orthodontic bands or other treatment appliances in place. If the correctional system charges fees for services that the inmate cannot or will not assume, correctional dentists should recommend the removal of the bands/appliances to prevent adverse conditions such as tooth decay and periodontal disease, unless doing so would result in life-threatening medical or developmental complication. In any event, the treating orthodontist should be consulted regarding the continuation or termination of the orthodontia treatment plan.

Informed consent should be executed before termination of orthodontic treatment. If removal of the orthodontic appliance is recommended but the inmate refuses, he or she should sign a refusal form documenting the decision.

Prosthodontics

Prosthodontics involves complete dentures, removable partial dentures, fixed prosthetics (crown and bridge work), and implants. Policies and procedures should address situations such as when an inmate (1) has an unacceptable level of mastication (chewing) that will interfere with his or her functional adjustment to incarceration, (2) enters the correctional system in midtreatment for prosthodontic appliance, or (3) needs replacement prosthodontics.

Before starting denture construction, the treating dentist should ensure that the inmate is committed to the effort and maintenance of a prosthodontic appliance, and that the inmate's systemic diseases are being addressed. The treating dentist should also ensure that the inmate's sentence is long enough to complete denture construction. The following guidelines will aid in developing reasonable policies.

- As part of the intake oral examination, the dentist should document the length of time an inmate has been edentulous in one or both arches. This will aid in determining an inmate's masticating ability without dentures.
- Usually there is no reason to immediately begin fabrication of dentures for an edentulous arch, unless medically indicated.
- If the correctional facility charges for replacing lost or damaged dentures, the fee structure should be guided by the correctional system's policies.
- Should a denture be lost or destroyed for reasons beyond the inmate's control, the replacement denture should be provided to the inmate at the correctional system's expense.

Removable partial dentures. The correctional system should establish policies on how often and under what circumstances replacement removable partial dentures (RPDs) are provided. One policy is that all

restorative, endodontic, oral surgery (dental extractions), and periodontal treatment should be completed before RPDs are fabricated for the patient. Another is to establish minimum oral hygiene standards that must be met before partial dentures will be fabricated. Anterior single tooth and most anterior two-tooth replacements would be considered cosmetic, and correctional systems may decide to not provide partial dentures for purely cosmetic purposes. However, to enhance the inmate's chances of employment upon release, prison systems might consider a policy that provides inmates with cosmetic appliances as they prepare for release.

Obviously, each patient's occlusion and oral condition should be considered before deciding whether to provide removable prosthetics. Once the patient has met the administrative and clinical conditions for RPDs, the correctional dentist may decide on one of two types: acrylic partial dentures or cast partial dentures, which are far superior to acrylic. The dentist may choose an acrylic RPD when the oral condition precludes the fabrication of a cast RPD.

Fixed prosthetics (crown and bridge). Fixed prosthetics are seldom available in correctional systems except in unusual or special circumstances. One such circumstance is when an inmate enters the system with a fixed prosthetic that was fabricated before incarceration but not placed or cemented. All teeth involved in fixed prosthetic therapy should have adequate periodontal support with normal physiologic mobility. All teeth should have a good prognosis of restorability and long-term retention.

Implants. Dental implants usually are not provided in correctional settings. However, policies should address how a newly incarcerated inmate with incomplete implants would be managed. Policies should include the following:

- Promptly identify newly arrived inmates with a history of implant dentistry.
- Obtain the name and address of the dentist who initiated implant treatment.
- Contact the implant dentist to determine whether the treatment could be suspended and continued upon the inmate's release without serious complications.
- Contact classification to determine whether transportation to the implant dentist's office for treatment is possible.
- Determine how cases are to be managed when the implant treating dentist is not located near an appropriate correctional facility or when an inmate lacks the funds to continue with the treatment.

Dental Record Keeping

It is strongly recommended that the dental record be part of the inmate's overall health record. If the health record is separated by discipline, pertinent dental information should be noted in the other health discipline records. The format, basic content of the dental records, and charting in the dental records should be standardized across the correctional system.

Policies should be developed on charting, confidentiality, transfer of records within the system, and retention of the records.

Clinical Performance Enhancement/Peer Review

Correctional systems should develop clinical performance review policies with the goal of enhancing patient care. A clinical performance review should be performed annually on all dentists who provide clinical care to inmates. The review should be performed by a dentist who can be objective in the review. When only one dentist is practicing in the correctional system or the number of dentists could lead to biases in the process, the correctional system should seek the services of an outside dentist, preferably one with correctional experience.

Policy should include a standardized list of items or issues to be checked during the peer review process. Typically these consist of documentation issues, quality and accuracy of dental radiographs and treatment plans, sequence of treatment, actual dental treatment rendered, and any complications from treatment. The results of the peer review should be discussed with the dentist in a confidential manner,

reviewed, and recommendations made for improvement. When significant concerns are found, a follow-up peer review in 90 days is recommended. The clinical performance enhancement process is not intended to be punitive in nature. It should be used to identify areas where improvement is needed and assist the treating dentist.

Quality Improvement

Dental services should be part of the institution's continuous quality improvement (CQI) program. If there is a multidisciplinary quality improvement committee, it should have representation from the dental department. An important benefit of a CQI program is that it identifies problems in an open and collaborative atmosphere and develops strategies to resolve them before they grow worse. Some quality improvement indicators that should be routinely monitored are as follows:

- Percentage of inmates receiving oral examinations within the specified time limit
- Percentage of inmates receiving oral screenings within the specified time limit
- Percentage of inmates whose dental health records contain notification of risk factors for periodontal disease
- Percentage of inmates who receive proper oral hygiene instruction
- Percentage of patients with abscessed teeth that are restored
- Number of patients who receive tobacco cessation education
- Number of diabetic patients who receive oral hygiene instruction

Dental Equipment, Instruments, and Supplies

Correctional systems should have adequate operatories, equipment, instruments, and supplies to meet the dental needs of inmates.

Dental operatories should have appropriate ventilation, a water recycling unit, X-ray shielding, and vacuuming systems. These systems should be checked frequently to ensure that they operate within specifications and safety limits.

Autoclave or chemiclave equipment used to sterilize instruments should be biologically monitored weekly. Radiograph machines should be monitored and checked annually.

Policy should address how instruments, needles, and blades are accounted for and secured. All cabinets and drawers containing instruments, needles, and blades should be appropriately secured and locked. Using cassettes to store dental instruments reduces injuries during sterilization and enhances security of the instruments.

Nonalcoholic antimicrobial mouthwash should be used in correctional settings. However, should the use of an alcoholic product be necessary, it has to be issued in unit dose, and the patient should be observed while swishing and expectorating.

Dental supplies should be adequate to meet the needs of the inmates at each facility. All dental materials/supplies that have a manufacturer's expiration date and are placed or used in treatment, as well as all pharmaceuticals that have a manufacturer's expiration date, should be identified and monitored. All such pharmaceuticals, supplies, and dental materials should be replaced before their expiration dates.

Infection Control

All correctional dental clinics should follow infection control practices. Guidelines set by the federal or state Occupational Safety and Health Administration and the Centers for Disease Control and Prevention should be reviewed annually by all dental personnel and documented in their personnel records.

Appropriate personal protective equipment such as gowns, gloves, face masks or shields, and eyewear should be worn routinely while attending to patients.

Where barrier wrapping is not used, the operatory, including dental chair, light, counter, and X-ray unit, should be properly disinfected using spray-wipe-spray technique after each patient encounter.

All items that enter a patient's mouth should either be disposed of or autoclaved. Hand pieces and components are to be heat sterilized between every patient treatment.

Contribution

This document was written by Michael Adu-Tutu, DDS, MBA, CCHP-A, former Dental Program Manager, Arizona Department of Corrections, Phoenix, AZ (retired), and Thomas E. Shields, II, DDS, CCHP, Director of Dental Services, Florida Department of Corrections, Tallahassee, FL, and edited by the late R. Scott Chavez, PhD, CCHP-A, Vice President, National Commission on Correctional Health Care, Chicago, IL, and Nicholas S. Makrides, DMD, MA, MPH, Chief Dental Officer, Federal Bureau of Prisons, Washington, DC.

References

Anno, B. J. (2001). *Correctional health care: Guidelines for the management of an adequate delivery system*. Chicago: National Commission on Correctional Health Care.

Boyer, E. M., Nielsen-Thompson, N. J., & Hill, T. J. (2002). A comparison of dental caries and tooth loss for Iowa prisoners with other prison populations and dentate U.S. adults. *Journal of Dental Hygiene*, *76*, 141-150.

Dean v. Coughlin, 623 F. Supp. 392, 404 (S.D.N.Y. 1985).

Makrides, N. S., Costa, J. N., Hickey, D. J., Woods, P. D., & Bajuscak, R. (2006). Correctional dental services. In M. Puisis (Ed.), *Clinical practice in correctional medicine* (2nd ed., pp. 556-563). Philadelphia: Mosby Elsevier.

Rold, W. J. (2003). The legal context of correctional health care. In *Standards for Health Services* (Appendix A). Chicago: National Commission on Correctional Health Care.