

DECEMBER 29, 1957

CHAPTER 5. DENTAL LABORATORIES

SECTION I. ESTABLISHMENT AND RESPONSIBILITIES

5.01 ESTABLISHMENT

Dental Service laboratories will be established and maintained at all VA health care facilities where inpatient and/or outpatient dental services are to be provided. Central Dental Laboratories will be established as authorized by the Chief Medical Director and maintained to the extent necessary for support of VA dental clinical activities in the fabrication of dental prostheses and other special appliances for which these laboratories are particularly equipped and staffed. Dental laboratories other than those classified as Central Dental Laboratories may be authorized by Central Office to provide limited dental laboratory services to selected facilities in isolated areas.

a. **Determination of Requirements.** The number, type, location, facilities and equipment required for Central Dental Laboratories will be determined on the basis of recommendations made by the Assistant Chief Medical Director for Dentistry. Amounts provided for operation of each Central Dental Laboratory, although not separately identified, are included in the recurring base of the primary fund allocation to the health care facility where they are located.

b. **Designation by Letter of Authorization.** Central Dental Laboratories, when established, will be designated by specific letter of authorization from Central Office. A copy of this assignment will be furnished to the appropriate Central Dental Laboratory.

c. **Utilization.** Unless unusual circumstances arise which are mutually resolved by agreements between the Chief, Dental Service, and the Chief, Central Dental Laboratory, only chrome-cobalt, porcelain-fused-to-metal and other special appliances will be referred to the Central Dental Laboratory for fabrication. All other oral prostheses will be processed and completed locally.

5.02 RESPONSIBILITIES

a. **Central Office.** The Assistant Chief Medical Director for Dentistry is responsible for the formulation of policies, standards and scope of Central Dental Laboratory activities, including, but not limited to, the provision of professional and technical assistance to the laboratories and participation in the development and recommendation of amounts that are included in the recurring base of the primary fund allocations for the operation of each Central Dental Laboratory.

b. **Directors of Health Care Facilities**

(1) Directors of facilities in which Central Dental Laboratories are located are responsible for assuring that other VA facilities receiving services from the Central Dental Laboratory are accorded fair and equitable priorities and that the requirements of any one facility do not take precedence over any other.

(2) Directors of facilities in which Central Dental Laboratories are located are responsible to the same degree for the successful operation of these activities as they are for activities that solely benefit their facility. Budgetary difficulties, workload backlogs, or other problems which cannot be resolved by local adjustment or action will be promptly called to the attention of the ACMD for Dentistry.

(3) Directors of facilities with Dental Services which utilize Central Dental Laboratories are responsible for providing adequate local laboratory facilities and dental laboratory technical staff to avoid inappropriate use of a Central Dental Laboratory. (See par. 5.01c.)

c. **Chiefs, Central Dental Laboratories.** The Chiefs, Central Dental Laboratories, are directly responsible to their directors for the administration and operation of the Central Dental Laboratories in accordance with prescribed policies and standards. It will be the responsibility of each Chief, Central Dental Laboratory, to:

(1) Make prompt decisions upon receipt of submitted cases as to whether they are acceptable for fabrication purposes or if they must be returned to the submitting Dental Service for necessary corrections.

(2) Implement and maintain quality control of all fabrications through inspection and review prior to their return to the submitting facility.

(3) Assure fabrication of prosthetic devices with minimum turn-around time, while maintaining satisfactory quality; attaining maximum productivity through the best possible organization of the resources available.

(4) Maintain liaison and effective communications concerning mutual problems through peer contact with dental personnel of submitting facilities.

(5) Assure that the Central Dental Laboratory technical staff possesses the capability and expertise to satisfactorily provide the full range of services requested, consistent with the mission of the VA.

d. **Chiefs, Dental Services.** It is the responsibility of each Chief, Dental Service, to:

(1) Assure that Dental Service laboratory technical staff possess the capability and expertise to fully fabricate most oral prostheses locally, including cast all-metal crown and fixed partial dentures; limiting the referrals to a Central Dental Laboratory to those specified in paragraph 5.01c.

(2) Assure that all staff dentists, residents and dental laboratory technicians are familiar with the contents of this chapter and understand requirements related to the use of the Central Dental Laboratory including allowing for adequate time for fabrication and transit.

(3) Personally, or by a professional designee, review all cases and prescriptions for completeness and adequacy relative to Central Dental Laboratory requirements prior to submission. (The responsibility for submission may be delegated to each staff dentist or resident clinician after the veteran has demonstrated, on a continuing basis, that submission requirements are being satisfactorily carried out and applicable procedures are understood.)

(4) Submit a roster of the staff dentists, residents and laboratory technicians to the Chief, Central Dental Laboratory, as of August 1, each year. The roster should also be updated as staff changes occur.

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SECTION II. DENTAL LABORATORY REQUIREMENTS AND PROCEDURES

5.03 REQUIREMENTS AND PROCEDURES COMMON TO BOTH DENTAL SERVICE LABORATORIES AND CENTRAL DENTAL LABORATORIES

a. Recognized techniques and procedures will be followed by all Dental Services and laboratories to insure the successful fabrication of acceptable dental prostheses.

b. All VA dental laboratories engaged in processing dentures will identify the prosthesis under construction by the permanent placement of the beneficiary's name on the tissue-bearing area of the prosthesis. If the tissue-bearing area will not accommodate the beneficiary's full name, initials will suffice.

5.04 GENERAL DENTAL SERVICE REQUIREMENTS FOR SUBMISSION TO A CENTRAL DENTAL LABORATORY

a. Accepted dental procedures considered prerequisite to a dental prosthesis should be completed prior to preparing and submitting a case to a Central Dental Laboratory for fabrication. These procedures should include all necessary surgical, operative, endodontic and periodontic procedures, as well as individual tooth preparations.

b. VA Form 10-2804, Central Dental Laboratory is a packet of three chemically treated sheets attached by perforations to a large header. The top half (above the fold line) will be completed by the submitting dentist who will be responsible for:

(1) Reading, understanding and completing the requirements printed on the header of the form.

(2) Providing all information related to the case as requested on the form. If there is insufficient space in the "Instructions and Comments" section, a plain sheet of paper will be attached to the packet containing the continuation of instructions started on the VA Form 10-2804. Under no circumstances will the back of the packet be used for inscribing additional information since this will obscure the other data which was inscribed on the front of the chemically treated paper.

(3) Printing name legibly and signing as the official responsible for the prescription and mouth preparation, AS WELL AS THE QUALITY AND ACCURACY OF THE MATERIALS BEING SUBMITTED FOR FABRICATION.

(4) Removing Copy 3 (the back pink copy) from the packet after all entries and signatures have been completed on the form. Copies 1 and 2 (one pink and one white) will be left attached to the header and will be included with the case when shipped to the CDL. Copy 3 will be retained by the submitting Dental Service as the interim retention/reference copy while the case is in the CDL. It should be noted that the bottom half of this copy provides space where any contacts with the CDL, subsequent to shipment, can be annotated. When the prosthesis is returned from the CDL, it will be accompanied by completed Copy 2 (white copy). This copy then may be substituted for the interim (pink) copy in the reference file, thus indicating

(by color code) that the pink copies represent the cases in the CDL and the white copies those prescriptions which have been completed by the CDL and returned.

- c. Tooth shade selection must be indicated for all initial submissions to the Central Dental Laboratory.
- d. Proper packing for shipment of cases is extremely important. The following suggestions are recommended:
  - (1) Pack all items carefully using plastic bubble wrap or other suitable material.
  - (2) Carefully wrap removable dies separately and place them in plastic containers.
  - (3) Remove occlusal records from their casts and place them in an appropriate container.
  - (4) Disassemble articulators which can be broken down and wrap their parts separately.
  - (5) Pack articulators which cannot be disassembled as follows:
    - (a) Lock all movable parts.
    - (b) Remove casts (including rings and mounting plaster) and wrap them separately.
    - (6) Wrap any unmounted casts individually.
    - (7) Allow at least one-half inch between wrapped objects, and between objects and container walls.

(8) In certain instances, e.g., submission with two master casts, two preliminary casts, two denture trial bases, and an articulator; send the shipment in two boxes with a single copy of VA Form 10-2804 in each. VA Form 10-2804 can be annotated "part one of two" and "part two of two" or similarly.

- e. The following information will be typed or printed on the mailing label before being affixed to the shipping boxes:

Director (00/160L)  
VA Medical Center (where CDL is located)  
Street address  
City, State, ZIP Code  
ATTN: Chief, Central Dental Laboratory

- f. The name and return address of the submitting facility will be placed in the upper left corner of the mailing label.

g. Submission of request for remake of a prosthesis should be accompanied by the unsatisfactory prosthesis and a statement as to its deficiencies. The returned prosthesis will be beneficial to the Central Dental Laboratory for evaluation purposes and effecting quality controls.

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5.05 SPECIFIC DENTAL SERVICE REQUIREMENTS FOR SUBMISSION TO A CENTRAL DENTAL LABORATORY

a. **Complete Dentures.** The fabrication of complete dentures will be routinely accomplished by the individual local Dental Service Laboratory. Only in unusual circumstances and with mutual agreement between the Chief, Dental Service, and the Chief, Central Dental Laboratory, will complete dentures be submitted for fabrication procedures. One-dentist Dental Services are exempt from this basic requirement.

(1) The molds, shades, and degree of cusps for denture teeth as well as other designated material for all submitted cases should be selected by the clinician and recorded in the appropriate space on VA Form 10-2804. The shade and mold guides used by the clinician should be from the same manufacturer of the artificial teeth that are stocked by the Central Dental Laboratory.

(2) Submissions for complete denture fabrication will include the following:

(a) Master cast, with minimum of one-half inch in the thinnest part, properly indexed and lubricated before mounting.

(b) Postpalatal seal (post dam), placed by the clinician. The laboratory will not make alterations to the master cast.

(c) Accurate base plate with attached occlusion rims.

(d) Mounted casts, when setup is requested. (Casts must be indexed, lubricated, mounted, and then removed from the mounting when sent for processing to the Central Dental Laboratory.

(e) Various types of diagnostic aids, if significant to the case.

(f) Specific instructions for tooth placement. This may be in the form of contoured rim, marks on master cast, or written instructions.

(3) Complete denture cases will be returned to the referring Dental Service for try-in after the teeth are positioned in wax.

b. **Rebasing Complete Dentures.** The processing of denture bases will be routinely accomplished by the individual local Dental Service laboratories. Only in unusual circumstances and with mutual agreement between the Chief, Dental Service, and the Chief, Central Dental Laboratory, will complete dentures be submitted for rebasing procedures. One-dentist Dental Services are exempt from this basic requirement. All undercuts must be removed from the tissue surface of these dentures prior to making a rebase impression. The impression must be post-dammed if post dam is desired. The impression will then be poured in stone at the facility but the cast should not be separated from the impression.

c. **Fabrication of Removable Partial Dentures**

(1) Diagnostic casts will be surveyed, tripoded and the desired design outlined by the clinician on all partial denture cases prior to the making of final impressions. Only after a careful survey, design and evaluation of the study cast can accurate determinations be made as to the proper

locations of rest preparations, modification of contour on certain remaining teeth for path of insertion, and/or other mouth and tooth conditions needing corrective attention.

(2) With questionable or unusually difficult cases, the designed study cast may be forwarded to the Chief, Central Dental Laboratory, to evaluate the contemplated design and plans for mouth preparation prior to clinical modifications or the making of the master cast.

(3) When a case is submitted to the Central Dental Laboratory for removable partial denture fabrication, the requirements will include the following:

(a) Diagnostic cast--surveyed, tripoded and design outlined.

(b) Master cast--unmarked, except for tripoding and the marking for distal extension where major connectors will extend to the post-palatal seal area; free of all wax.

(c) Articulator. All removable partial denture submissions, except those opposing an edentulous arch, will be prepared with indexed master casts mounted on a stable articulator. Prior to shipment, the mounting and casts should be removed, separated from each other, and all elements, including the articulator, carefully wrapped to prevent breakage.

(d) Shade selection--to be made with shade guides of the same manufacturer of artificial teeth or facings that are being stocked by the Central Dental Laboratory and noted in the appropriate space on the initial submission of VA Form 10-2804.

(4) Removable partial denture framework will be returned to the referring Dental Service for try-in prior to the processing of the denture base.

**d. Fabrication of Fixed Restorations.** Submissions for the fabrication of fixed restorations will adhere to the following requirements:

(1) The cast must be accurate, full arch, and have removable dies.

(2) The opposing cast must be an accurate and a bubble-free reproduction of the full arch occlusion.

(3) Surveyed abutment crowns.

(4) In those submissions where crowns are being fabricated to receive a RPD clasp later, an uncut master cast will be included along with the master cast. This may be a subsequent pour of the master impression. This is necessary to visualize soft tissue contours and relate planned clasps to hard and soft tissues.

(5) All casts will be submitted mounted on a stable articulator and steps must be taken to insure that:

(a) The mounted cast is checked for adequate tooth reduction and accurate registration by the clinician prior to submission.

(b) In opposing edentulous areas, an occlusal plane is established.

(c) The plaster mounting leaves the ends of the dowel pins exposed and accessible.

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- (6) Only removable die-dowel systems are acceptable for submission and steps must be taken to insure that:
- (a) All dies are shallowly "ditched," trimmed, and that the margin is marked with a crayon-type pencil.
  - (b) The dies are keyed for proper repositioning.
  - (c) All dies are *free of undercuts* at the margins and that all undercuts above the margin are blocked out by the clinician, preferably before impression is taken.
  - (d) The dies are surveyed to determine that an acceptable path of removal/insertion is present for each individual tooth preparation and to determine that a common acceptable path is present for the two or more abutment teeth for the fixed partial denture. Attention must also be given concerning a survey path acceptable to the proximal surfaces of teeth adjacent to abutment teeth.
  - (e) Die systems which utilize an internal or external interlocking of the dies are not used.
  - (f) Interchangeable dies (the use of two dies for waxup of separate areas of a single crown or coping) are not used.
  - (g) Post and core castings for endodontically treated teeth are fabricated and cemented prior to crown construction.
  - (h) Only ADA approved die materials are used.
- (7) It is necessary that only shade guides of the type employed by the Central Dental Laboratory are used. Use only porcelain shade guides for shade selection for porcelain restorations, and acrylic shade guides for acrylic restorations.
- (8) Special pontic design or characterization should be indicated and illustrated.
- (9) A diagnostic waxup or setup, as well as pre-preparation cast, is highly desirable for all anterior restorations and should be included in the initial submission.

#### **5.06 CENTRAL DENTAL LABORATORY REQUIREMENTS AND PROCEDURES**

a. Authority is extended to the Chief, Central Dental Laboratory, to return cases submitted to the laboratory which, in the Chief's judgment, have master casts not suitable for the fabrication of the dental prosthesis requested. Defective casts or dies will be returned to the referring Dental Service so that corrections considered essential for the successful fabrication of the prescribed appliance can be accomplished. Mounted casts will be returned to the submitting dentist for evaluation when the opposing posterior teeth do not appear to be in centric relationship (intercuspal position), unless confirmation of the abnormality is annotated on VA Form 10-2804.

b. The Central Dental Laboratory will routinely fabricate porcelain-fused-to-metal fixed restorations, porcelain jacket crowns, and resin veneer restorations. Crowns posterior to the

maxillary first molars will be made completely of metal unless a porcelain veneered restoration is justified on VA Form 10-2804.

c. Articulated prostheses submitted to the Central Dental Laboratory for processing will be remounted and equilibrated to centric occlusion for processing error prior to finishing and polishing the prostheses.

d. Processed peripheral borders will not be polished by the Central Dental Laboratory.

e. Each submission handled by a Central Dental Laboratory will be assigned a case number by the laboratory. A new series of numbers beginning with the number "1" will be started on January 1 of each calendar year. If more than one appliance is to be constructed for the same patient, only one number will be assigned to the case.

f. When received by the CDL, an inventory of all parts of the submission (casts, dies, etc.) will be recorded on the VA Form 10-2804 along with the fabrication requirements of the prescription. When the inventory has been recorded, the remaining two copies of the form will be separated and Copy 2 filed. The original (Copy 1) will accompany the case through the laboratory. When the fabricated prosthesis is returned to the submitting facility, whether for try-in or insertion, Copy 2 will be retrieved from the CDL file and returned with the case. Copy 1 will be filed in its place. The CDL file will, by color differences between Copies 1 and 2, readily indicate the submissions under construction in the CDL as well as those which have been completed and returned to submitting facilities. Retained CDL files will be handled and eventually disposed of in accordance with DM&S Records Control Schedule 10-1.

g. When the Central Dental Laboratory has completed all phases of fabrication, as requested on VA Form 10-2804, it will be voided by an overprinting stamp prior to its return with the case. Any further steps necessary to complete the case will have to be resubmitted on a new VA Form 10-2804. This is necessary for accounting purposes and forms control within the Central Dental Laboratory.

h. When the case is completed, the composite lab values (CLVs) will be noted on the original VA Form 10-2804. CLVs used should be those that are standardized for all Central Dental Laboratories.

(The provisions of ch. 5 are based on 38 U.S.C. 4115.)

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