

TECHNICAL BULLETIN

AREA DENTAL LABORATORY
PROSTHODONTIC SERVICE

HEADQUARTERS, DEPARTMENT OF THE ARMY
30 DECEMBER 1985



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AREADENTALLABORATORY PROSTHODONTIC SERVICE

You can help improve this manual. If you find any mistakes or if you know a way to improve procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to HQDA (DASG-DCM), 5111 Leesburg Pike, Falls Church, VA 22041-3258. A reply will be furnished directly to you.

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*This bulletin supersedes TB MED 148, 29 November 1974.



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1. Mission. The US Army area dental laboratory (USAADL) performs professional prosthodontic and dental laboratory support for oral health activities of the uniformed services as directed by Headquarters, US Army Health Services Command. Support includes professional guidance, consultations and diagnostic services; dental laboratory services and fabrication of prostheses for restoration and replacement of lost tissue; specialized training and education programs; publication of informational and instructional material for professional and technical personnel; support and conduct of applied research; and development testing and evaluation of doctrine, techniques, equipment, and other materials.

2. Organization. Every US Army dental clinic is provided with dental laboratory support. This support is divided into two distinct categories that include the local dental laboratory support and the area dental laboratories (ADLs).

a. Local dental laboratory support. The organization of the dental activity (DENTAC) laboratory support is best determined by the DENTAC commander and his or her designated laboratory officer.

b. Area dental laboratories. There are four large, full-service area dental laboratories staffed by 40 to 100 dental laboratory technicians and each is commanded by a dental officer. These laboratories are located throughout the United States and each supports a specific region and a designated number of DENTACs.

c. Locations.

(1) USAADL, Walter Reed Army Medical Center (WRAMC), Washington, DC 20307-5200.

(2) USAADL, Fort Gordon, GA 309055650.

(3) USAADL, Fort Sam Houston, TX 78234-6200.

(4) USAADL, Alameda, CA 94501-1022.

d. Services the ADL Provides.

(1) *Construction and repair.* Construction and repair of dental restorations and prostheses of all types, including fixed and removable partial dentures; complete dentures; orthodontic and pedodontic appliances; surgical, and radiological splints and prostheses; mouth protectors; temporary or interim restorations, and patient education models and teaching aids.

(2) *Consultation Services.* Requests should be submitted in duplicate, together with full arch diagnostic casts, an interocclusal record, and panoramic radiograph and/or periapical series. All necessary clinical information should be included under clinician's remarks.

(3) *Consultant visits.*

(4) *Continuing education.* Dental clinical-laboratory relations courses will be presented as directed by OTSG. Other continuing education activities will be held as required.

(5) *Publications.* Publication of informational and instructional material for professional and technical training.

e. Dental laboratory consultant and coordinator. The Assistant Surgeon General for Dental Services has appointed a consultant for ADL services who also serves as a dental laboratory coordinator. This officer maintains active liaison with-

(1) The ADL commanders.

(2) DENTAC commanders.

(3) Designated Air Force and Navy officers.

(4) The consultant will monitor Army workload and adjust the workload by requesting transshipping between ADLs and recommending negotiation of interservice support agreements. Upon mobilization, the coordinator will take action through appropriate command channels to ensure expeditious fabrication of all essential dental prostheses within the prescribed health service area for support of the expanded Army after M-Day for either a partial or full mobilization.

3. Education and training.

a. Each ADL conducts formal courses designed to acquaint dental officers with the role of ADLs in the clinical practice of prosthodontics. Considerations in case selection as well as case submission are identified for complete dentures, removable partial dentures, and fixed partial dentures. Established techniques are presented to enable the clinician to fully utilize the dental laboratory. Specific subject areas include prescription writing, centric jaw relation records, master casts and dies, ceramic alloy restorations, repairs, packaging, and mailing. The student views incoming and outgoing work as well as actual construction techniques and participates in a practical laboratory exercise.

b. Videotapes are available to familiarize dental officers with ADL utilization. These may be obtained from the Media Division, Academy of Health Sciences, US Army.

(1) VT 202, A Tour of an RDA (ADL).

(2) VT-933, TB MED 148.

(3) VT-934, Centric Jaw Relations for Removable Prosthodontics.

(4) VT-935, Centric Jaw Relations for Fixed Prosthodontics.

c. DENTACs may request to send dental officers or technicians to an ADL for familiarization or specialized training in specific areas.

4. Policies.

a. To enhance the efficiency of the DENTAC Laboratory System and to control ADL workload, the following procedures should be accomplished in local dental laboratories if possible:

- (1) Custom trays.
- (2) Occlusion rims.
- (3) Transitional partial dentures.
- (4) Single all metal cast restorations.
- (5) Simple metal (type III gold) fixed partial dentures.
- (6) Acrylic resin processing.
- (7) Partial and complete denture set-ups.

b. Only those above procedures which are beyond the capability of the DENTAC may be requested from the ADL. Direct-communication between the DENTAC commander or his laboratory officer and the servicing ADL commander is encouraged for coordination of dental laboratory work that cannot be accomplished at the DENTAC.

5. Use of DD Form 2322 (Dental Laboratory Work Authorization). (See figs 1 and 2.) This form replaces DA Form 2868 (Prosthodontic Prescription and Consultation Request) which is obsolete and can no longer be used.

a. The dentist is legally responsible for providing the dental laboratory specialist with detailed and specific directions for fabrication of the requested dental appliance. He or she must provide a correctly completed and signed work authorization.

b. This form will be completed in duplicate and the file copy retained as an audit trail for precious metals and composite laboratory value (CLV) reporting as prescribed by AR 40-182 for RCS MED-376 (R1) and RCS MED-389. (See app A.)

c. It is extremely important that the administrative data in blanks 1 through 28, where applicable, be completed and typewritten or handwritten legibly. Specific guidance is provided as follows:

- (1) *Block 1.* Enter the Local Case No. as follows:
 - (a) The ADL master station computer code for that DENTAC or clinic. (*Example:* Walter Reed Station Computer Code: 2000.)
 - (b) Month initiated (1 through 12).
 - (c) Individual clinic case number.
 - (d) *Example:* 2000-6-027; this number goes in block 1.

Note. The information in block 1 is designed for computer input and will establish an authorization, cost analysis, and material requirements for this particular patient beneficiary type.

(2) *Block 2.* Enter the complete mailing address and AUTOVON telephone number of the submitting clinician to include the ZIP code.

(3) *Block 3.* The ADL Case No. will be provided by the ADL.

(4) *Block 4.* Enter the patient's name as shown in figure 1.

(5) *Block 5.* Enter the patient's complete Social Security number. This is extremely important in order to validate patient authorization and provide a basis for the expenditure of Federal funding. A prescription submitted without this information will result in an administrative delay to obtain this documentation from the clinician.

(6) *Block 6.* Grade: Utilize the pay grade of the sponsor; e.g., E-1 to E-9, 01 to 010, W-1 to W-4; civilian grade GS1 to GS15; or other appropriate abbreviation.

(7) *Blocks 7 and 8.* See figures 1 and 2 for examples.

(8) *Block 9.* Beneficiary Type: The service category is required by Department of Defense (DOD) directive. The following abbreviations will be utilized:

(a) Active Federal service-A.

(b) Branch of service.

1 US Army-A.

2 US Navy-N.

3 US Air Force-AF.

(c) Retired-R.

(d) Family member-FM (any Defense Enrollment Eligibility Reporting System (DEERS) authorized family member).

(9) *Blocks 10 and 11.* See figures 1 and 2 for examples.

(10) *Block 12.* Type of Prosthesis or Restoration: Utilize the CLV definition codes (app A) for the procedure requested.

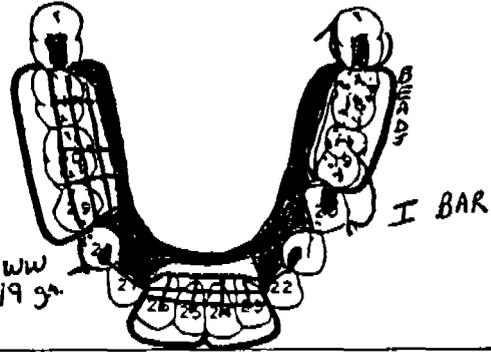
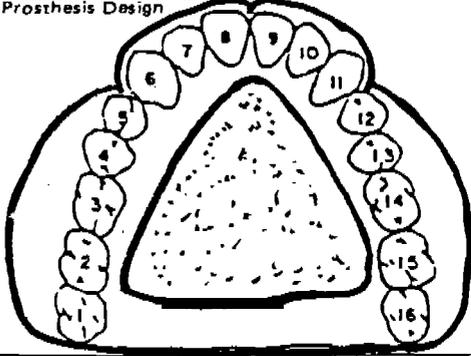
(11) *Blocks 13 through 28.* See figures 1 and 2 for examples.

d. The Laboratory Data part of DD Form 2322 (reverse side) is for laboratory use only and is self-explanatory.

6. Priority in laboratory service. When time is a critical factor the station may request a priority or "RUSH" fabrication. In this event, the prescription must show in block 26 a suspense date that will satisfy the military requirements of the patient. The continuity workload at the ADLs necessitates that priority service requests be justifiable. Leave and/or normal permanent change of station (PCS) moves of the patient and/or doctor will not be considered as an

4015-1-10		Dental Clinic #6		1-414	
1. Local case No.		2. Name of Treatment Facility, Mailing Address & Autovon No.		3. ADL Case No.	
USA DENTAC Fort Hood, TX 76544-5063 737-1620					
4. Patient's Name (Last, First, Middle Initial)		5. SSN	6. Grade	7. Age	8. Date Initiated
SMITH, DONALD E.		558-42-1452	E-7	38	4 Jan 84
9. Beneficiary Type	10. Organization, Duty and Home Telephone Nos.			11. Date Forwarded	
AA	HQ Co, 3rd Bn 737-1410				
12. Type of Prosthesis or Restoration		13. Shade and Mold by Guide		14. Date Delivered	
Max Cast Base, Man RPD		Bioblend 106, H,33M 65			

15. Prosthesis Design



Request(s) (Check appropriate box(es))

16. Framework Only 17. sSet UP

18. CI Process 19. Fully Fabricate 20. Bisque EL-k 21. Consultation

Inclosed Items

22. Diagnostic Casts 23. Jaw Relation Record 24. Radiographs 25. Other (See remarks)

26. Clinician's Remarks/Instructions

Set teeth in cross bite at left
Extra relief over mandibular tori

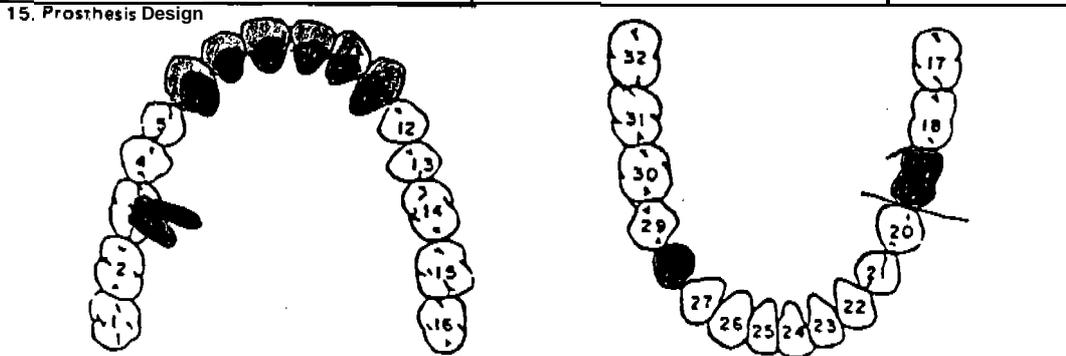
27. Typed Name and Grade of Dental Officer	28. Signature
CPT Richard Smith, DC	<i>Richard Smith</i>

DD FORM 2322
83 OCT

DENTAL LABORATORY
WORK AUTHORIZATION

Figure 1. Sample request for removable prosthodontics

4062-2-34		Budge Clinic USA DENTAC Fort Sam Houston, TX 78234-6200		471-6677	2-320
1. Local Case NO.	2. Name of Treatment Facility, Mailing Address & Autovon No.			3. ADL Case No.	
4. Patient's Name (Last, First, Middle Initial) JONES, EVA M.		5. SSN 432-64-1450	6. Grade W-3	7. Age 28	8. Date Initiated 10 Feb 84
9. Beneficiary Type EM		10. Organization, Duty and Home Telephone Nos. MMC Discom 494-4397		11. Date Forwarded	
12. Type of Prosthesis or Restoration FPD #6-11, Cr #19,28,Post#3			13. Shade end Mold by Guide Vita A2 See remarks		14. Date Delivered



Request(s) (Check appropriate box(es))

16. Framework Only 17.

18. Process 19. Fully Fabricate 20. Bisque Bake 21. Consultation

Inclosed Items

22. Diagnostic Casts 23. Jaw Relation Record 24. Radiographs 25. Other (See remarks)

26. Clinician's Remarks/Instructions

Copy esthetics of inclosed diagnostic wax up.
 Surveyed Cr #19, mesial rest and guide plane, DL retention
 Cast tripoded to RPD path of insertion
 Full porcelain occlusal #28
 Cast post # 3 in base metal alloy
 Shade BF 52 for # 28
 Do not finish margins

27. Typed Name and Grade of Dental Officer
 JAMES L. SMITH, LTC, DC

28. Signature

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DENTAL LABORATORY WORK AUTHORIZATION

Figure 2. Sample request for fixed prosthodontics.

adequate reason for requesting expeditious treatment of cases. It is the responsibility of the clinician to determine that adequate treatment time exists for the patient and/or doctor before the case is started. Ensure that the doctor's phone number is on the DD Form 2322 so that when required the ADL may call to negotiate a final suspense date.

7. Quality Control. All dental officers will comply with the provisions of this bulletin when submitting cases to an ADL. Every effort will be made by the ADL to follow the recommendations of dental officers concerning design, method of fabrication, or materials, but the final decision rests with the ADL commander who is authorized to return cases with appropriate remarks for correction or consultation. Upon the receipt of a properly signed request the ADL assumes that the DENTAC commander of the submitting station has approved the patient's eligibility and the treatment procedure. All prosthodontic prescriptions will be countersigned and dated as designated by the DENTAC commander. When available, the DENTAC commander will designate a trained prosthodontist as his or her prosthodontic monitoring officer to be responsible for the control and utilization of prosthodontic assets. He or she should evaluate and legibly sign all prosthodontic cases being submitted to an ADL by nonspecialists.

8. Clinical Considerations. Pre-treatment aids, including full mouth radiographs and diagnostic casts should be utilized to determine the final treatment plan for each patient who is to receive prosthodontic care. Modifying considerations such as patient status, time available to complete treatment, and patient interest and ability to perform required oral health maintenance procedures must be recognized.

a. Abutment selection for fixed partial dentures should follow accepted guidelines and provide adequate support for the intended prosthesis. The use of cantilever fixed partial dentures should be carefully evaluated.

b. Intra-coronal retainers (inlays) are undesirable for fixed partial dentures.

c. The properly prepared partial veneer crown (3/4 crown and its modifications) is an excellent preparation. Its use conserves tooth structure and preserves natural tooth contours.

d. Fixed restorations of eight or more units, or request for appliances utilizing commercially designed attachments, unless submitted by a trained prosthodontist, will be referred to the ADL for consultation prior to tooth preparation.

e. Individual crowns and fixed restoration involving teeth of little or no esthetic significance are more

serviceable if they are not veneered with procelain.

f. Guidance by the clinician is necessary in order for the ADL to achieve proper esthetic results. The use of a diagnostic waxup, casts showing previous esthetically acceptable prostheses, photographs, or other methods of communicating tooth form, size, shade and arrangement are encouraged.

g. A prosthodontic restoration is not indicated unless a significant improvement in mastication can be achieved, esthetics improved, or movement of the remaining teeth prevented.

h. Acid etch prosthodontic restorations should be limited to anterior restorations, orthodontic retainers, or periodontal splints.

9. Requirements for mouth preparation. Proper mouth preparation is essential for the success of any dental prosthesis, and there are certain principles of mouth preparation which must be considered for each type of restoration.

a. *Complete dentures.* Some casts sent to the laboratory for the construction of dentures show evidence of unusual tissue conditions which raise questions as to the need of tissue conditioning or correction. An explanation of these conditions in the Clinician's Remarks/Instructions, block 26 of DD Form 2322 is necessary to guide technical procedures.

b. *Removable partial dentures.* Mouth preparation for removable partial dentures necessitates the following considerations, many of which can only be appreciated by occluding the diagnostic casts and analyzing them with a dental surveyor.

(1) Irregularities of the occlusal plane, which should be corrected by occlusal equilibration, extraction of the offending teeth, the insertion of onlays or crowns, etc.

(2) Disharmonies of occlusion.

(3) Lack of sufficient interocclusal space-

(a) For denture bases and artificial teeth.

(b) For rests, indirect retainers, connectors and clasp arms. A minimum clearance of 1mm must be provided in all tooth contacting relations for occlusal, incisal and cingulum rests, and indirect retainers. Sufficient space must also be made for that metal which connects the rest to the remainder of the prosthesis. When the anterior palatal tissues are to be covered by metal, a clearance of 1mm is necessary between the incisal edges of lower anterior teeth and the palatal tissues. When clasp arms cross over incisal or occlusal surfaces, as with embrasure or crib clasps, a cross-sectional space of 1.5mm is required at the embrasure for EACH clasp in all occluding relations.

(4) Recontouring of tooth surfaces may be indicated for the following reasons:

(a) To parallel surfaces which provide the guiding planes that direct the path of insertion and removal.

(b) To minimize undesirable undercut areas and unhygienic spaces.

(c) To reposition heights or contour that are unfavorably close to the occlusal surfaces or incisal edges and do not permit proper clasping.

(d) To create or position areas favorable for retention. This may necessitate the placing of a restoration.

(e) To permit the positioning of major connectors in proper relation to the lingual tissues.

(f) When removable partial dentures are to include occlusal or incisal onlays, the corresponding tooth surfaces may require smoothing to minimize pits and fissures. In instances of exceptionally deep faults, fixed metallic restorations may be indicated.

(g) To improve esthetic results, recontouring the proximal surfaces of teeth adjacent to edentulous spaces facilitates the use of appropriate artificial teeth and minimizes unsightly spaces gingival to the contact points. Recontouring to reposition heights of contour in a gingival direction may minimize the display of clasp arms.

(5) Occlusal rest form:

(a) Should cover one-third of the faciolingual width of the occlusal surface.

(b) Should extend toward the center of the occlusal surface a distance comparable to its width.

(c) The floor of the preparation should be spoon-shaped, without undercuts, and basically at right angles to the long axis of the tooth with a slight deepening toward the center of the tooth.

(d) The cave-surface outline should be well rounded to include rounding of the marginal ridge. Sharp angles and box formations are contraindicated because they induce destructive torques and interface with seating of the framework.

(6) Incisal rest form:

(a) The floor should be basically at a right angle to the long axis of the tooth, with a slight deepening toward its center.

(b) The depth and width of the rest preparation should be such as to provide an adequate bulk of metal in all occluding relations.

(c) All angles and surfaces must be rounded.

(7) Cingulum rest form:

(a) The cingulum rest is the one of choice on maxillary anterior teeth when occlusion, tooth bulk, and space permit. It is used most advantageously on maxillary cuspids.

(b) The preparation should follow the outline of the cingulum and the floor should be slightly inclined toward the center of the tooth.

(c) A tooth with an inadequate cingulum may require the construction of a crown, inlay, or resin bonded onlay into which the cingulum rest is prepared.

(d) If a lingual rest is desired on a mandibular anterior tooth or when the occlusion does not permit a cingulum rest on a maxillary anterior tooth, a lingual shoulder may be prepared in the enamel at or below the cingulum. These preparations should be rounded and smooth.

(8) Every tooth surface that has been modified must be polished.

(9) Teeth with short clinical crowns may require periodontal surgery to expose more surface for the proper placement of minor connectors, rests, or clasp arms.

10. The dental casts.

a. Pouring the cast. When the impression is removed from the mouth it should be immediately rinsed with a thin slurry of artificial stone to remove saliva and mucous. It is then thoroughly rinsed under running water and the excess moisture eliminated. Casts must be poured at once in artificial stone using the manufacturer's recommended water-powder ratio. When it is impractical to box an impression there should be an initial pour of stone that covers the peripheral roll. The tray should be supported in a horizontal position by its handle only. Rough nodules should be built up on the surface of the initial pour to engage and retain the base portion, which will be poured as a second stage. After the preliminary pouring has set, the impression may be inverted or boxed in order to complete the base. Inverting the impression or placing it on the work bench while the stone is setting can cause a distortion.

b. Requirements for casts.

(1) Casts must be accurate, neatly trimmed, dense, have a hard surface, and be free of voids and blebs. Correction of minor voids and blebs in noncritical areas is the responsibility of the clinician. The occlusal surfaces must be absolutely free of imperfections. Imperfections in critical locations constitute the requirement for a new cast. Hand carving of casts will not be accepted.

(2) Casts must be properly extended to include all of the areas necessary for denture support. Maxillary casts must indicate a definite posterior border for the prosthesis and display the hamular notches as well as the entire tuberosities. Mandibular casts must include both retromolar pads.

(3) The base of maxillary casts at the deepest part of the palate must be 1/2-inch thick. The lingual area of mandibular casts must also be 1/2-inch thick and be trimmed flat and smooth, yet maintain and preserve the lingual peripheral roll.

(4) The peripheral roll must not exceed 1/8 inch in depth. It must be fully preserved and protected by a land or edge extending outward 1/8 inch from the roll.

(5) The side-walls of the base of casts for removable partial dentures must taper outward toward the base to facilitate removal from the duplicating material. Figure 3 should be utilized as a matrix for sizing of the master cast to a typical duplication flask utilized by the ADL.

(6) Particular care must be taken in washing, brushing or soaking casts in tap water. Tap water will leach the surface of casts. If casts must be wet for any reason, a slurry of set artificial stone should be used.

(7) If a posterior palatal seal for a complete maxillary denture or extensive partial denture is not included in the impression technique, the clinician must modify the cast by scrapping its surface to effect a posterior seal. This seal should be approximately 1 1/2mm thick at its greatest depth; this is a clinical, not a laboratory procedure.

(8) If a denture is to be constructed to provide a relief for sensitive areas, bony prominences, etc., the dental officer must outline in green the areas to be relieved on the cast and describe the depth of relief desired.

(9) If the casts are mounted on an articulator prior to submission to an ADL, the base of the casts must be keyed and lubricated in the key area. This permits accurate remounting of the casts during the construction of the prostheses. These casts must be removed from the articulator prior to submission to the ADL. The articulator must be sent with the casts since mounted casts are often not transferable from one articulator to another and still retain their correct orientation.

(10) The submitting dental officer must critically evaluate and approve the casts and all records prior to delegating the work to a dental laboratory specialist.

11. Intermaxillary records.

a. *Complete dentures.* Any technique which provides accurate jaw relationship records may be used. The technique must employ a rigid, stable record base and occlusion rim. The record base may be lined with wax, zinc-oxide impression material, etc., to improve its fit and stability. To minimize incidents of the occlusion rim separating from the record base

it may be sealed to the base with sticky wax. The occlusal surface of the maxillary rim must be formed to establish the plane to which the dental officer desires the teeth to be set. The facial surfaces of the occlusion rim should be contoured to indicate the desired positions of the artificial teeth and have the median line marked. The rims and records must be indexed to permit positive reassembly at the laboratory. To prevent soft tissue displacement interocclusal records should be made in a material that is "dead soft" while the relations are recorded. The material must become rigid upon setting, and not distort when separated or during the packing and shipping.

b. *Removable partial dentures.* In general, the procedures for recording jaw relationships for removable partial dentures are similar to those described above for complete dentures. If the casts can be related to each other in unmistakable centric occlusion by means of the remaining teeth, vertical, connecting lines (orientation marks) may be drawn across the facial surfaces of occluding teeth at widely separated points. When this procedure is impossible due to lack of a sufficient number of properly related natural teeth, record bases with occlusion rims or well-trimmed plaster or elastomeric records may be used. Opposing teeth must not contact the opposite ridge nor should they penetrate the recording media to contact the hard portion of the occlusion rim or the record base. If the clinician wishes to exclude the opposing cast or occlusal record, the ADL will attempt to properly place and contour the components of framework; however, occlusal equilibration will then be the clinician's responsibility. "Mush bites," ("sandwich bites," or wax registrations made will probably distort in packaging and mailing and are generally contraindicated. After the casts have been related to each other with the registration, this relationship should be checked clinically against the patient's natural occlusion. In order to make this comparison, it is necessary to trim the registration so that only the indentations of the tips of the opposing cusps remain. Registrations must not be sealed to the casts and the casts must not be sealed to each other. Approximated casts sealed in this manner very often are broken during shipment.

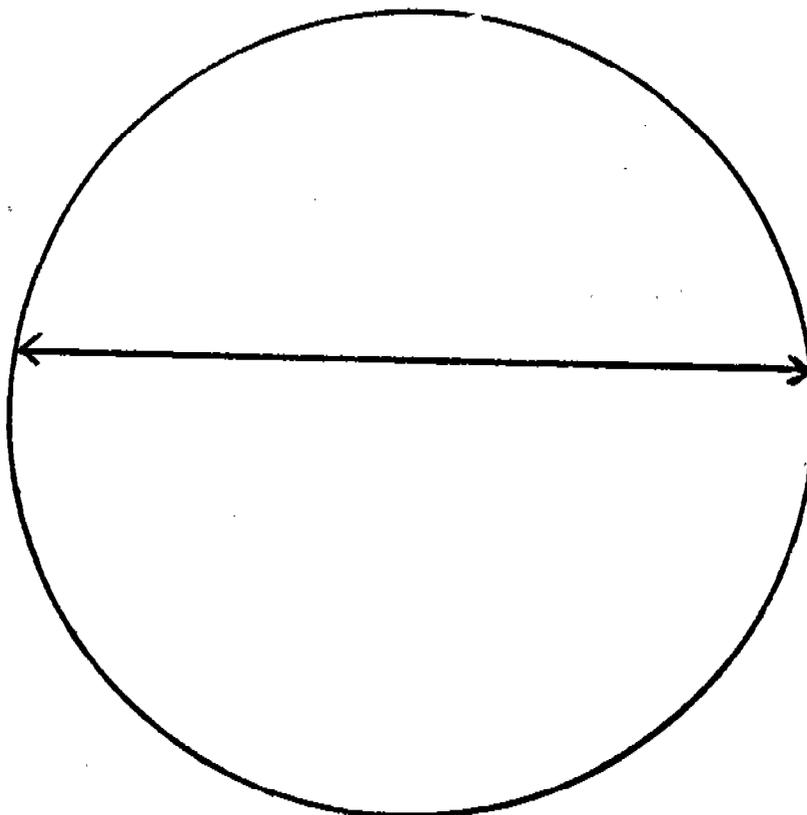
12. *Fixed partial dentures/crowns/dies.* To assist ADLs in fabricating the requested replacement, these procedures must be followed.

a. All master and opposing casts must be poured in improved stone. Opposing casts must be included in all instances.

b. Full arch casts are required for all fixed partial dentures.



Thickness available for duplication material



Dimension of typical duplication flask. Larger flasks are available; however, experience has demonstrated greater consistency of correct frame work adaptation to master casts when this size of flask is utilized.

Figure 3. Typical duplication flask.

c. Dies must be fabricated of die stone or metal.

d. When separating the die from the cast, as much of the edentulous ridge as possible must be kept intact. This facilitates the proximal contouring of restorations in relation to the edentulous ridge and gingival sulcus of the abutment tooth.

e. To ensure accurate seating without rotation, dies must be constructed with dowel pins and indexed.

f. To facilitate removal of dies, the dowel pins should be parallel to each other and their apices exposed through the base of the cast and the articulator mounting.

g. Each die must have definite margins; the die must be accurately trimmed to the gingival margins and the margins lightly outlined with nonindelible colored pencil.

h. Dies for porcelain jacket crowns must have a 2mm to 3mm parallel root surface below the margin to facilitate the adaptation and removal of the platinum matrix without distortion.

i. Occlusal registrations must provide accurate articulation. Registrations must be stable enough to withstand shipment. Stone straps are the preferred technique as durable occlusal registrations.

j. Wax patterns must be invested prior to sending them to an ADL for casting. A notation as to the amount and type of metal required for casting must be included. The submission of wax patterns is not encouraged and should only be used in an emergency situation.

k. The prescription should provide the technician with specific instructions as to type and position of crowns and pontics. Diagnostic casts and sketches are helpful supplements to the prescription for extensive anterior restorations. Esthetic guides such as a diagnostic cast with neatly set denture teeth of the desired shape, contour, and positioning facilitates the laboratory technician's task and assures predictable esthetic results.

l. Shade selection for fixed ceramometal restorations will be made from current standard shade guides commercially available from the appropriate manufacturer (VITA, Bioform extended range, etc.). Do not utilize a resin shade guide (Bioblend) for requesting porcelain.

m. If the clinician desires the use of a die spacer or sealer (cynoacrylate), it is to be placed prior to sending it to an ADL.

n. Casts for surveyed crowns must be tripodded by the clinician to provide the path of insertion.

13. Artificial teeth. Activities not authorized to utilize indefinite quantity contracts may, when necessary, obtain teeth from ADLs for individual cases.

These requests will be made by properly documenting DD Form 2322. (See para 5 above.) Requests must indicate manufacturer, mold, and shade. In selecting the shade, the shade guide specified by the manufacturer must be used for the particular tooth desired. The ADL can be contacted to determine **stockage** to facilitate the selection process.

14. Immediate dentures. To construct immediate dentures, an ADL must receive the following, in addition to the master casts and the jaw relation records:

a. A duplicate cast of the anterior portion of each arch for which multiple anterior teeth are to be replaced.

b. Specific instructions either to duplicate or modify the existing tooth form or arrangement.

c. Requests for surgical templates if they are desired.

d. Identification of the teeth to be extracted with a red "X" on both the cast and the prescription form when an immediate removable partial denture is to be constructed.

15. Discrepancies. Some of the more frequent discrepancies observed in cases submitted to dental laboratories are-

a. Operative dentistry not completed.

b. Distortion of tissues due to direct tray pressure.

c. Inadequate preparation of rest seats and guiding planes for removable partial dentures. Failure to eliminate undesirable undercuts and heights of contour that interfere with the proper position and function of clasps.

d. Insufficient interridge distance for artificial teeth and denture bases. Insufficient clearance for occlusal, incisal, and cingulum rests.

e. Improperly trimmed or underextended casts.

f. Casts showing evidence of-

(1) Calculus deposits or debris on teeth.

(2) Distortions due to either the premature removal of the impression or impression material sticking to the teeth.

(3) Hand carving to correct defective tooth or tissue contours.

(4) Voids, blebs, and rough, porous, or chalky surfaces.

(5) Talcum, dirt, Vaseline, slurry, etc.

g. Unstable record bases and improper occlusal registrations.

h. Removable partial denture designs drawn on master casts without authorization.

i. Failure to remove undercuts from the denture before making an impression for rebase or reline.

j , Broken and distorted occlusal registrations resulting from poor packing.

k . Fixed prosthodontics.

(1) Excessively tapered tooth preparations or underprepared teeth.

(2) Dies with margins that are rough, obscure, or not outlined.

(3) Dies that are rough, not properly trimmed, or with no positive seat.

(4) Inaccurate occlusal records.

(5) Failure to provide full arch casts for posterior fixed partial dentures.

(6) Failure to provide casts of adequate extension for anterior crowns and fixed partial dentures.

(7) Improper tooth preparation for the type of restoration requested.

(8) Lack of adequate esthetic guidance.

(9) Inappropriate margin preparation for procedure requesting; i.e., beveled margin for collarless restoration.

16. Miscellaneous.

a . Requests for all miscellaneous prostheses, such as mouth protectors, periodontal splints, and surgical splints, must be given the same careful attention as that accorded any other dental prostheses. Requests will include accurate casts, treatment plan, diagram of the design, and the desired materials. In many instances, occlusal registration records and a description of the overall treatment plan are necessary.

b . To repair fractured dentures, positive repositioning of the parts is essential. Complete dentures often require a plaster or stone matrix to hold the parts in accurate relation. Partial denture repairs usually require a cast made from an impression with the denture accurately seated in the mouth. If the impression is made with the denture out of the

mouth, the denture usually will not fit the cast. If teeth or clasps are to be added to dentures an opposing cast is necessary when occlusal relations are involved.

c . Before making the impression for relining or rebasing, all of the undercuts must be removed from the tissue surface of the denture base. This is to permit separation of the denture from the cast during the laboratory procedures.

17. Packaging and Mailing.

a . Casts must be wrapped individually in suitable packing material or placed in the foam protector (NSN 6520-00-142-8727, Protector, Denture Model), back-to-back, and shipped in the standard mail carton (NSN 8115-00-511-5750, Box, Setup).

b . Casts must be dry to prevent the adherence of packing materials.

c . Occlusion rims should be placed on the casts.

d . Dies must be removed from the casts and packed separately (NSN 8115-00-844-6695, Box, Small Parts).

e . Occlusal indices must be wrapped separately.

f . The mailing box must be wrapped or secured in a manner to ensure arrival of the contents. (Use paper tape, do not use string or nylon tape.)

g . DA Label 18 (Mailing Label) available through AG distribution channels, must be firmly affixed to the mailing box, and mailed to the appropriate ADL.

h . Requests originating within continental United States must be designated FIRST CLASS or PRIORITY, depending upon the most rapid form of transit from the originating station. Requests originating with oversea stations should be sent PRIORITY and indicate a Required Delivery Date (RDD) on the shipping label.

i . Current local mailing policies regarding metered mail must be followed.

APPENDIX A LABORATORY DEFINITIONS, VALUES, AND CODES

Section I. LABORATORY PROCEDURE DEFINITIONS

A. GENERAL PROCEDURES.

- 00001 *Pour Cast, Preliminary, Master, Opposing or Remount-Credit* one for each cast poured. The fabrication of a positive reproduction of the forms of the hard and soft tissues of the jaws by pouring a material, gypsum, or a low fusing metal, into an impression made in a dental treatment room. This includes the steps of preparing the surface of the impression, pouring the material into the mold, adding a base, recovering and trimming the cast to the proper dimensions.
- 00002 *Pour Cast, Fixed-Credit* one for each cast poured. That series of steps that includes washing the impression, placement of dowel pins, pouring a suitable material into the impression, trimming the cast, and sectioning and trimming the dies. This includes the use of DiLok or Pindex type systems.
- 00003 *Box and Pour-Credit* one for each cast poured. The fabrication of a positive reproduction of the form of the hard and soft tissues of the jaws by pouring a material, usually gypsum, into an impression made in a dental treatment room. Includes the steps of boxing, (surrounding the impression with a limiting wall to accurately control the cast size and outline), preparing the surface of the impression, pouring the material into the mold, recovering and trimming the cast.
- 00004 *Impression Tray Custom-Credit* one for each tray. The fabrication of an individualized receptacle, designed for a specific patient, which is prepared from a primary cast of the upper or lower jaw. The tray is to be used to carry, confine, and control an impression material while making a secondary, master, or final impression whether fixed, removable, or complete. (This item includes altered cast trays regardless of the number of edentulous areas involved.)
- 00005 *Pour Altered Cast-Credit* for one each edentulous area poured. Includes the steps of repositioning a removable partial denture framework with an impression attached, back into the altered master cast, boxing the assembly, pouring a gypsum material into the impression to recreate the edentulous ridge areas, and trimming the cast to proper size and shape.
- 00006 *Articulation, Simple, Fixed or Removable-credit* one for each cast placed on plane line or simple hinge articulator. The attachment of a diagnostic or master cast to a simple hinged instrument which has no adjustable parts. Includes the steps of positioning the casts using a centric record or other markings as a guide for cast relationship and using a gypsum material as the attaching medium. Includes the use of plasterless articulators.
- 00007 *Articulation, Semiadjustable, Fixed or Removable-Credit* one for each cast articulated. The attachment of a maxillary and/or mandibular cast to an articulator (Hanau H2, 158 or Whip Mix), capable of being adjusted for lateral and protrusive movements to more closely simulate a patient's recorded jaw movements. Includes the steps of positioning the casts using a mounting jig, a facebow record, and centric relation records, using a gypsum material as the attaching medium. Credit clinic line item 09924 for setting the articulator.
- 00008 *Articulation, Fully Adjustable, Fixed or Removable-Credit* one for each cast articulated. The attachment of a maxillary or mandibular cast to a fully adjustable articulator (e.g., Denar or Stewart) with a gypsum material as the attaching medium and using a pantographic facebow and centric relation records. Credit clinical line item 09925 for programming instrument.
- 00009 *Soldering Procedures, Fixed or Removable-credit* all soldering operations here, even those for new cases, one per joint or repair. If a joint is not made by soldering (e.g., a fixed partial denture framework cast as one unit), no credit will be taken. That series of steps

necessary for the joining of two metal parts by the direct fusion of the two parts or through the use of a intermediary material (solder) which joins and adheres to the surfaces of the metals being joined. This soldering procedure may also be used to repair a defect in a crown, a fixed partial denture (FPD), or a removable partial denture (RPD) framework. It includes the steps of approximating the two pieces, surrounding them with investment material (if necessary), effecting the joint, recovering the joined parts, and finishing as necessary. Credit twice for post soldering of ceramometal restorations.

- 00010 *Acrylic Resin Repairs and Modifications*-Credit one for each repair. If the prosthesis requires multiple repairs, credit one per area required. All steps, including making a cast or matrix, necessary to provide a structural modification made on any removable prosthesis to restore it to a serviceable condition. Includes addition of teeth, fracture repairs, corrections of distortions, excessive wear, or other damages. Credit repairs that require soldering using item 00009.
- 00011 *Repolishing*-Credit one for each prosthesis repolished. This includes the laboratory procedure involved in reestablishing an acceptable finish to all fixed and removable prostheses after intraoral adjustments.
- 00012 *Open.*
- 00013 *Open.*
- 00014 *Open.*

B. FIXED PARTIAL DENTURES.

- 00015 *Fully Fabricated Fixed Partial Denture, Porcelain or Acrylic Resin Veneer*-Credit one for each unit of the prosthesis. That series of operations; including waxing, spruing, investing, casting, preparation of the metal, applying the veneer, contouring and polishing, that lead to a laboratory complete fixed partial denture constructed with veneers of porcelain or acrylic resin applied to a substructure of any metal. The fixed partial denture may be of any combination of retainers and pontics. Not all units of the prosthesis need be veneered with porcelain or acrylic resin. The pontics

may be of the prefabricated type; e.g., **Tru-pontic**, Steel's facing, Harmony, etc. When characterization and final glazing are done, items 00032 and 00033 should also be credited. Do not credit items 00016 and 00017 additionally. This item includes all bar type fixed partial dentures (i.e., Dolder bar, etc.) except the **Andrews** type. Credit the bar portion as a single pontic.

- 00016 *Casting Only, Fixed Partial Denture, Porcelain or Acrylic Resin Veneer*-Credit one for each unit of the prosthesis. That series of operations including waxing, investing, casting, and partial preparation of any metal for a veneer, leading to the fabrication of the cast metal framework of a fixed partial denture that will receive a veneer after a clinical try-in. Not to be credited in addition to item 00015.
- 00017 *Veneer Only, Fixed Partial Denture, Porcelain or Acrylic Resin Veneer*-Credit one for each unit. The application of a veneer of porcelain or acrylic resin to a metal substructure after a clinical try-in. This will include the steps of metal preparation, opaquing, porcelain or acrylic resin application, contouring and final polishing. When characterization and final glazing are done, items 00032 and 00033 should also be credited. Do not use in addition to item 00015.
- 00018 *Fully Fabricated Fixed Partial Denture, All Metal, Unveneered*-Credit one for each unit of the prosthesis. That series of operations including waxing, investing, casting, and polishing, leading to a laboratory completed fixed partial denture constructed of any metal and not veneered. Include all bar attachment fixed partial dentures (i.e., Dolder bar, etc) except the Andrews type. Credit the bar portion as a single pontic.
- 00019 *Fully Fabricated Crown, Porcelain or Acrylic Resin Veneer*-Credit one for each crown. That series of operations; including waxing, investing, casting, preparation of any metal for a veneer, opaquing, application of a veneer of porcelain or acrylic resin, contouring and polishing, leading to a laboratory completed crown. Use this item to credit one piece veneered dowel crowns (Richmond type) and single veneered crowns

that are splinted together and are not part of a fixed partial denture. Items 00032 and 00033 may be used in addition to this item.

- 00020 *Casting Only, Crown, Porcelain or Acrylic Resin Veneer*-Credit one for each crown. That series of operations including waxing, investing, casting, and partial preparation of a metal for a veneer, leading to the fabrication of the cast metal framework of a crown that will receive a veneer of porcelain or acrylic resin after a clinical try-in. Not to be credited in addition to item 00019.
- 00021 *Veneer Only, Crown, Porcelain or Acrylic Resin Veneer*-Credit one for each crown. That series of operations including metal preparation, opaquing, porcelain or acrylic resin application, contouring and polishing, that leads to the completed crown. May be used in addition to items 00032 and 00033. Do not use in addition to item 00019.
- 00022 *Fully Fabricated Crown, All Metal, Unveneered*-Credit one for each crown. That series of operations; including waxing, investing, casting, and polishing, that leads to a crown constructed of any metal that is not to be veneered. This item to be used also for single, unveneered crowns that are joined or splinted together and are not part of a fixed partial denture. This item includes all single unit restorations that restore the entire occlusal or incisal surface (i.e., 3/4, 7/8, onlays, etc).
- 00023 *Inlays, Metal or Porcelain*-Credit one for each inlay. That series of operations; including waxing, investing, casting and finishing, necessary to fabricate any inlay. Porcelain inlays may also use items 00032 and 00033 when applicable.
- 00024 *Porcelain or Acrylic Resin Jacket Crown*-Credit one for each crown. That series of operations necessary to fabricate a standard porcelain jacket crown, a single or twin foil type porcelain crown or a flaked and heat cured acrylic resin crown. Porcelain jacket crowns may also receive additional credit using items 00032 and 00033 when applicable.
- 00025 *Cast Post, Dowel and Core*-Credit one for each separate canal filled; e.g., if a one-piece casting fills three canals,

count it as one; if it requires three separate castings, count it as three. That series of operations including waxing, investing, casting, and finishing, necessary to fabricate a metal casting for a non-vital tooth. The casting is designed to extend into a prepared canal within a tooth root and has a supragingival projection that will serve to support an artificial crown or overdenture.

- 00026 *Casting Only*-Credit one for each ring full of patterns cast. This item is used when just the casting procedure is completed by one laboratory and all other stops, including investing and polishing, are accomplished at another facility. If a pattern has to be invested and cast, count it twice. This item is intended to include such items as prefabricated dowels, periodontal knife holders, tray handles, Duralay patterns, etc.
- 00027 *Survey Crown*-Credit one for each crown or unit of fixed partial denture surveyed. This item is intended to provide additional credit for those units that require the mounting of casts on a survey table in order to parallel surfaces for guide planes. It will also be used when retentive areas, rest areas, and special rest receptacles for precision type removable partial dentures are fabricated into the surface of a crown. Do not credit this item more than once for the same crown.
- 00028 *Precision Connector or Stress Breaker, Fixed Partial Denture*-Credit one for each two-part precision attachment. This item is intended to provide additional credit for those extra steps that are necessary to construct male-female type precision connectors that form integral parts of a fixed partial denture. Credit this procedure in addition to the regular value of the basic fixed partial denture.
- 00029 *Andrews Bridge*-Credit one for the entire restoration, including the retainers. That series of steps including waxing, investing, casting, veneering, and fabrication of the removable acrylic resin portion, leading to the complete fabrication of both the fixed and removable elements of the prosthesis. Soldering procedures should be credited using item 00009.

00030 *Template, Provisional Fixed Partial Denture or Crown-Credit* one for each template. That series of operations including the heating, then molding, and trimming, necessary to fabricate clear vinyl or tinfoil and wax type templates for use in the fabrication of provisional fixed partial dentures and crowns.

00031 *Provisional Fixed Partial Denture or Crown-Credit* one for each unit. This item includes all steps necessary to fabricate a provisional fixed partial denture or crown in the laboratory. It may be made from heat cured or autopolymerizing acrylic resin. If a template is used, credit item 00030 also.

00032 *Characterized Veneer or Special Staining-credit* one for each unit. This item is intended to provide extra credit whenever special staining or characterization is necessary for porcelain or acrylic resin veneers. It may be used when any stain or modifier is applied, either internal or external. It is usually in response to a clinician's specific instructions as depicted on the prescription form. Can be credited in addition to items 00015, 00017, 00019, 00021, 00023, and 00024. This item does not include glazing.

00033 *Glazing-Credit* one for each crown, splint or fixed partial denture glazed. The operation of firing porcelain to obtain the final desired maturation. This can include the use of special glazing materials. This item may be credited in addition to items 00015, 00017, 00019, 00021, 00023, 00024, and 00032.

00034 *Open.*

00035 *Open.*

C. REMOVABLE PARTIAL DENTURES.

00036 *Record Base and Occlusion Rim, Partially Edentulous Casts-Credit* one for each arch. Includes the steps of forming base and forming an occlusion rim which will be used to make jaw relation records. These steps may include the attachment of a record base of acrylic resin, shellac, or wax to a cast metal framework for the same purpose.

00037 *Occlusal Relation Orientation Indexes — Credit* one for each set of casts. Includes all steps necessary for the laboratory fabrication of indexes on the sides of casts to preserve and reorient occlusal

relationships.

00038 *Setup, Removable Partial Denture-Credit* one for each arch. The arrangements of teeth and final waxup on the trial denture base. @

00039 *Processing of Bases, Removable Partial Dentures-Credit* one for each denture. That series of operations including flasking, finishing, and polishing necessary to convert the denture base wax pattern into a solid acrylic resin denture base.

00040 *Remount and Equilibration of Processed Denture-Credit* one for each denture. This includes those steps of reattaching the processed denture to the articulator and the selective grinding of the occlusal contacts to establish harmony. May be credited for both laboratory and clinical remounts.

00041 *Process Only, Removable Partial Denture or Complete Denture-Credit* one for each denture only when the steps of boil-out, packing and curing are accomplished. This item is used only when flasking, deflasking, finishing, and polishing will be done at another facility.

00042 *Fully Fabricated Removable Partial Denture-Credit* one for each denture. This includes the steps of casting a framework, arrangement of teeth on bases, waxing, processing, finishing, and polishing. Do not credit items 00038, 00039, 00041, and 00045 with this procedure. a

00043 *Transitional Removable Partial Denture-credit* one for each denture. A completed prosthesis, usually fabricated entirely of acrylic resin, either heat cured or autopolymerized, which restores one or more, but not all of the natural teeth, and/or associated structures in either arch. If it includes wrought metal clasps for retention, use it with 00044. Not to be used in conjunction with items 00038, 00039, and 00041.

00044 *Wrought Clasps-Credit* one for each clasp fabricated. Includes that series of steps of adapting, attaching, finishing and polishing wire clasps. Credit soldering of these clasps to a removable partial denture framework with item 00009.

00045 *Castings Only, Removable Partial Denture, Surgical Splints, Arch Bars and Metal Palates-Credit* one for each

- casting. That series of steps including design, blockout, duplication for refractory and fitting casts, finishing, and polishing, necessary for the fabrication of the metal framework.
- 00046 *Positioning, Acrylic Resin Pontic or Tube Tooth*-Credit one for each tooth positioned. The arrangement and fitting of acrylic resin denture teeth or facings to an edentulous area. This includes the steps of tooth selection, arrangement, grinding-in, and matrix formation. For attachment to the denture, credit item 00047.
- 00047 *Reinforced Acrylic Resin Pontic/Tube Tooth, Attaching and Processing*--Credit one for each denture. The permanent attachment of TABS, RAPS, or tube teeth to the removable partial denture framework. Can be used in addition to item 00039.
- 00048 *Precision Attachment, Removable Partial Denture*-Credit one for each attachment. Credit this in addition to item 00045. The inclusion in a removable partial denture of the specialized retainer consisting of a metal, female receptacle, and a closely fitting male counterpart. The metal, female receptacle is usually contained within the normal or expanded contours of a retainer on an abutment tooth and the male counterpart is attached to the denture framework. Credit for the receptacle of the abutment tooth will have been previously taken using item 00027.
- 00049 *Specialized Hinged Retainer, Removable Partial Denture*-Credit one for each hinged assembly. Credit this in addition to item 00045. The fabrication of a cast metal removable partial denture framework as in item 00045 with the inclusion of a specialized retainer (Swinglock, Oddo Hinge, or Hidden Latch) consisting of a swinging (hinged) retentive gate attachment with frictional locking device.
- 00050 *Stress Breaker, Removable Partial Denture*-credit one for each attachment. Credit this in addition to item 00045. The fabrication of a cast metal removable partial denture framework as in item 00045 with the inclusion of a device within the framework to relieve the abutment teeth of all or part of the occlusal forces. Includes the use of prefabricated custom units.
- 00051 *Bar Clip, Removable Denture*-Credit one for each clip assembly. Credit this in addition to item 00045. This item is intended to provide additional credit for the inclusion of a metal clip inside the denture base which will engage a cylindrical rod that connects two abutment crowns. Credit for fabrication of the abutment crowns and the cylindrical rod should be taken under item 00015 or 00018.
- 00052 *Reline, Complete or Removable Partial Denture*-Credit one for each denture. Includes the steps of pouring a cast, attaching the denture to a jig (if used), re-waxing, flasking, packing, curing, deflasking, and polishing necessary for resurfacing of the tissue surface of the denture base. Credit is taken whether autopolymerizing or heat curing acrylic resin is utilized.
- 00053 *Rebase, Complete or Removable Partial Denture*-Credit one for each denture. Includes the steps of pouring the cast, mounting the denture on an articulator or reline jig, re-waxing, flasking, boil out, packing, curing, recovering, finishing, and polishing for the entire replacement of the denture base. Credit will be taken here whether the acrylic resin technique used is autopolymerized or heat cured. Do not use in conjunction with item 00061.
- 00054 *Open.*
- 00055 *Open.*

D. COMPLETE DENTURES.

- 00056 *Record Base and Occlusion Rim, Complete Denture*-Credit one for each arch. Includes the steps of forming a stabilized record base of shellac, autopolymerizing acrylic resin, vacuum molded material, or wax, and forming an occlusion rim which will be used to make jaw relation records and for the arrangement of teeth.
- 00057 *Setup, Complete Denture*-Credit one for each arch. The steps of selecting and arranging artificial teeth in wax on a trial denture base for the purpose of verifying the correct centric jaw relation, vertical dimension of occlusion, esthetics, and phonetics, prior to final waxup and processing.
- 00058 *Final Waxup, Complete Denture*-Credit one for each arch. Includes the step of final festooning, stippling of wax,

- contouring, and sealing to the master cast.
- 00059 *Characterized Denture Base, Complete or Removable*-Credit one for each denture characterized. Included under this item will be any modification of base resin color (such as Kaylon stains). Does not include routine stippling, festooning, or rugae .
- 00060 *Process Only, Complete Denture* -Credit one for each denture. That series of operations including flasking, boil out, packing or pouring, curing, and deflasking necessary to convert the denture base wax pattern into a solid acrylic resin denture base.
- 00061 *Finish and Polish, Complete Denture*—Credit one for each denture. Includes recovering from the cast, smoothing, finishing, and polishing. Credit for remount procedures is item 00040.
- 00062 *Fully Fabricated Complete Denture* —Credit one for each fully fabricated denture. This item includes the steps of setup, waxup, processing, finishing, and polishing. Do not count items 00057, 00058, 00060, or 00061 with this item. Item 00040 and 00059 may be counted with this item if accomplished.
- 00063 *Duplicate or Transitional, Complete Denture*-Credit one for each denture. Includes the steps of making a duplication mold, introducing the acrylic resin into the mold, recovering, finishing, and polishing necessary to fabricate a duplicate or transitional denture. If special characterization of the denture is accomplished, additional credit using item 00059 may be used.
- 00064 *Open.*
- 00065 *Open.*

E. ORTHODONTICS.

- 00066 *Orthodontic Study Models*-Credit one for each model. Do not use in addition to item 0001. Includes all steps of pouring a gypsum material into an impression, adding an additional base and trimming with the aid of a wax bite wafer to a set of precise rules as designated by the American Association of Orthodontists. These casts have the patient's name inscribed and are usually polished. They provide a permanent record of the patient's teeth, arches, and jaw relation.

- 00067 *Diagnostic Setup or Waxup*-Credit one for each cast on which repositioning is accomplished. Do not credit, this in addition to item 00068. Includes the steps of waxing or modifying a stone cast and repositioning the sections or teeth in order to preview the possible or planned result of orthodontic, surgical, or prosthodontic treatment. This item includes the duplication of the original and modified casts.
- 00068 *Orthodontic Tooth Positioner*-Credit one for each positioner. This item includes the steps of sectioning a stone cast, repositioning segments to a desired arrangement, duplicating the cast, applying the elastic materials, processing the elastic materials, recovering, finishing and polishing the positioner.
- 00069 *Hawley Appliance, Simple*-Credit one for each appliance. The construction of an appliance of acrylic resin and stainless steel wire labial bow, and can be made with or without retentive clasps. Includes the steps of designing the appliance, forming and positioning any wires (except clasp wires), applying autopolymerizing acrylic resin, recovering, and polishing. If retentive clasps are utilized, credit with item 00044. If additional attachments are used credit them with item 00071.
- 00070 *Removable Orthodontic Expansion Appliance*-credit one for each appliance. The construction of an acrylic resin expansion device which may be made with or without retentive clasps. Includes all the steps of designing the appliance, positioning the expansion device, applying the autopolymerizing acrylic resin, recovering, and polishing. If retentive clasps are used, credit them with item 00044. If modification attachments are utilized, credit them with item 00071 as appropriate.
- 00071 *Modification Attachments for Hawley and Expansion Appliances*-Credit one for each attachment. Includes rests, finger springs, hooks, loops, uprighting springs, "W" springs, cuspid retracting springs, or any other auxiliaries that are attached to the basic appliances of items 00069 and 00070. Also includes all necessary soldering. Do not credit item 00009.

00072 *Soldered Appliance, Simple, Fixed* — Credit one for each basic appliance such as lingual arch, palatal arch or unilateral and bilateral space maintainers.

00073 *Soldered Appliance, Complex, Fixed* — Credit one for each appliance. Consists of a basic fixed appliance with additions of attachments such as expansion screws, coffin springs, expansion arches, Crozat, Arnold expanders, or quad helix expansion arches. Not to be taken in addition to item 00072.

00074 *Basic Orthopedic Appliance*-Includes appliances such as inclined planes, bite planes, Sved appliances, hard occlusal night guards, and chin cups that are usually fabricated with autopolymerizing acrylic resin. They are used to guide the teeth or jaws into predetermined position or relation. Oral surgeons, orthodontists, periodontists and prosthodontists will usually prescribe this type of appliance. If it requires the use of a heat cured acrylic resin, use item 00041 for additional credit. If wire or ball clasps are used, credit it with item 00044.

00075 *Functional Orthopedic Appliance*— Credit one for each appliance. Includes such appliances as the Frankel or Bimler Activator, etc. They are designed to effect skeletal changes, modifications in arch width and jaw repositioning. They are usually fabricated of heat cured acrylic resin bases with stainless steel wire labial bows, clasps, springs, expansion screw, etc., and attaches both jaws. Requires either pouring a plaster index or mounting on an articular to orient casts to the required vertical and horizontal relationships. Also includes all other steps of making this appliance. If the appliance is heat cured, credit it with item 00041.

00076 *Open.*

00077 *Open.*

00078 *Open.*

00079 *Open.*

F. MAXILLOFACIAL.

00080 *Cast, Maxillofacial, Complex or Sectional*—Credit one for each cast assembly. This item includes those complex and sectional casts which are normally associated with maxillofacial procedures

such as facial moulages, oculo-facial prosthesis, aural prosthesis, etc. For more routine casts, use items 0001 and 00003 as appropriate.

00081 *Sculpture of Prosthesis, Maxillofacial*—Credit one for each major defect restored in the prosthesis. A malar prosthesis would be one prosthesis; but, a combination malar, orbital socket, and nose would be one prosthesis with three major anatomical defects restored, and therefore, even though they are joined, the restoration would receive three units of credit. Includes preparation of the master cast for wax or clay application and sculpture with final detail, ready for mold production.

00082 *Fabrication of Stone Mold, Maxillofacial*—Credit one for each unit. If the mold is poured in one piece, credit one; but if the mold is poured in sections for future assembly, credit one for each section poured.

00083 *Fabrication of Metal Mold, Maxillofacial*—Credit one for each unit of the assembly in the same manner as item 00082. If an indirect technique is used to fabricate the metal molds, take credit for all casts involved using items 00001, 00003, or 00080 as appropriate.

00084 *Processing Prosthesis, Extra Oral*— Credit one for each major defect restored. Includes mold preparation, flasking, curing, and all finishing and tinting procedures. If more than one processing is involved per prosthesis, credit each processing procedure.

00085 *Casting, Complex Metal, Maxillofacial*—Credit one for each unit or segment made separately. This item includes those metal castings that are exclusively associated with maxillofacial treatment. For routine castings, such as surgical splints, cast arch bars, and obturator frameworks, use item 00045 for credit.

00086 *Processing, Acrylic Resin Complex, Maxillofacial*—Credit one for each restoration. Includes only those procedures that are unique to maxillofacial. Includes flasking, packing, curing, deflasking, finishing. For routine processing procedures, credit with item 00039 or 00060 as appropriate.

00087 *Radiation Carriers, Shields and Docking Devices*—Credit one for each device.

This includes all steps necessary to fabricate such radiation augmentation devices, such as waxing, processing, and swaging metal.

00088 *Oral Orthotic Devices*-Credit one for each device. This includes all steps required for the fabrication of devices such as mouth stick appliances for quadriplegics, etc.

00089 *Custom Ocular Prosthesis*-Credit one for each prosthesis. This includes all steps necessary to complete the prosthesis, such as painting the iris and characterization of the sclera.

00090 *Open.*

00091 *Open.*

00092 *Open.*

G. MISCELLANEOUS

00093 *Mouthguard, Flexible, Athletic or Fluoride Carrier*-Credit one for each device. Includes all steps of adapting to the casts, trimming, and polishing.

00094 *Acrylic Resin Model, Demonstration, Education*-credit one for each model. An individually made acrylic resin model designed to illustrate specific dental or medical conditions prior to or after treatment. Usually fabricated of thermoplastic or autopolymerizing acrylic resin. Includes all steps such as pouring, trimming, and polishing.

00095 *Special Projects*-Included are those projects, including the fabrication of special purpose appliances and training

aids, which do not fit into any of the other preceding numbered categories. The value of each special project will be credited with one CLV for each 6 minutes of actual, hands-on fabrication time. If a project takes 1 hour, take credit for 10 CLVs. Procedure 00095 will be used to record the laboratory acid etching of Maryland bridge retainers. Record 00095x2 for each retainer etched. Laboratory credit for the fabrication of a Maryland bridge is recorded using either the 00015 or 00018 procedure code for each unit fabricated. For example, a three-unit Maryland Bridge with a porcelain fused to metal pontic is recorded as follows: 00015x1, 00018x2.

00096 *Issue Prosthodontic Teeth*-Credit one per prosthodontic prescription transaction. Upon request by a dental officer or dentists via a prosthodontic prescription form, the appropriate 1x6s or 1x8s are forwarded to the requester. This is intended to credit a transaction which includes time and dollar expenditure without any further credit being made available to the laboratory or dental clinic which supply the teeth.

00097 *Open.*

00098 *Open.*

00099 *Open .*

H. REMAKES.

Remakes are done according to current ADL policy.

Section II. COMPOSITE LABORATORY VALUES

<i>Code</i>		<i>CLV</i>
00001	Pour Cast, Preliminary, Master, Opposing or Remount	2
00002	Pour Cast, Fixed	4
00003	Box and Pour	5
00004	Impression Tray, Custom	4
00005	Pour Altered Case	5
00006	Articulation, Simple, Fixed or Removable	1
00007	Articulation, Semiadjustable, Fixed or Removable	2
00008	Articulation, Fully Adjustable, Fixed or Removable	2
00009	Soldering Procedures, Fixed or Removable	4
00010	Acrylic Resin Repairs and Modifications	5
00011	Repolishing	2
00012	Open	
00013	Open	
00014	Open	
00015	Fully Fabricated Fixed Partial Denture, Porcelain or Acrylic Resin Veneer	40
00016	Casting Only, Fixed Partial Denture, Porcelain or Acrylic Resin Veneer	22
00017	Veneer Only, Fixed Partial Denture, Porcelain or Acrylic Resin Veneer	18
00018	Fully Fabricated Fixed Partial Denture, All Metal, Unveneered	30
00019	Fully Fabricated Crown, Porcelain or Acrylic Resin Veneer	41
00020	Casting Only, Crown, Porcelain or Acrylic Resin Veneer	23
00021	Veneer Only, Crown, Porcelain or Acrylic Resin Veneer	18
00022	Fully Fabricated Crown, All Metal, Unveneered	31
00023	Inlays, Metal or Porcelain	12
00024	Porcelain or Acrylic Resin Jacket Crown	25
00025	Cast Post, Dowel and Core	12
00026	Casting only	2
00027	Surveyed Crown	2
00028	Precision Connector or Stress Breaker, Fixed Partial Denture	5
00029	Andrews Bridge	220
00030	Template, Provisional Fixed Partial Denture or Crown	2
00031	Provisional Fixed Partial Denture or Crown	3
00032	Characterized Veneer or Special Staining	2
00033	Glazing	2
00034	Open	
00035	Open	
00036	Record Base and Occlusion Rim, Partially Edentulous Casts	6
00037	Occlusal Relation Orientation Indexes	2
00038	Setup, Removable Partial Denture	12
00039	Processing of Bases, Removable Partial Dentures	12
00040	Remount and Equilibration of Processed Dentures	7
00041	Process Only, Removable Partial Denture or Complete Denture	8
00042	Fully Fabricated Removable Partial Denture	87
00043	Transitional Removable Partial Denture	18
00044	Wrought Clasps	2
00045	Casting Only, Removable Partial Denture, Surgical, Arch Bars and Metal Palates	55
00046	Positioning, Acrylic Resin Pontic or Tube Tooth	3
00047	Reinforced Acrylic Resin Pontic/Tube or Tooth, Attaching and Processing	4
00048	Precision Attachment, Removable Partial Denture	5
00049	Specialized Hinged Retainer, Removable Partial Denture	60
00050	Stress Breaker, Removable Partial Denture	25

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<i>Code</i>	<i>CLV</i>
00051 Bar Clip, Removable Denture	20
00052 Reline, Complete or Removable Partial Denture	15
00053 Rebase, Complete or Removable Partial Denture	20
00054 Open	
00055 Open	
00056 Record Base and Occlusion Rim, Complete Denture	5
00057 Setup, Complete Denture	18
00058 Final Waxup, Complete	3
00059 Characterized Denture Base, Complete or Removable	3
00060 Process Only, Complete Denture	8
00061 Finish and Polish, Complete Denture	8
00062 Fully Fabricated Complete Denture	37
00063 Duplicate or Transitional, Complete Denture	20
00064 Open	
00065 Open	
00066 Orthodontic Study Models	8
00067 Diagnostic Setup or Waxup	20
00068 Orthodontic Tooth Positioner	40
00069 Hawley Appliance, Simple	15
00070 Removable Orthodontic Expansion Appliance	15
00071 Modification Attachments for Hawley and Expansion Appliances	2
00072 Soldered Appliance, Simple, Fixed	18
00073 Soldered Appliance, Complex, Fixed	24
00074 Basic Orthopedic Appliance	20
00075 Functional Orthopedic Appliances	31
00076 Open	
00077 Open	
00078 Open	
00079 Open	
00080 Cast, Maxillofacial, Complex or Sectional	8
00081 Sculpture of Prosthesis, Maxillofacial	30
00082 Fabrication of Stone Mold, Maxillofacial	10
00083 Fabrication of Metal Mold, Maxillofacial	15
00084 Processing Prosthesis, Extra Oral	20
00085 Casting Complex Metal, Maxillofacial	80
00086 Processing, Acrylic Resin Complex, Maxillofacial	22
00087 Radiation Carriers, Shields and Docking Devices	15
00088 Oral Orthotic Devices	20
00089 Custom Ocular Prosthesis	80
00090 Open	
00091 Open	
00092 Open	
00093 Mouthguard, Flexible, Athletic or Fluoride Carrier	4
00094 Acrylic Resin Model, Demonstration, Education	15
00095 Special Projects (Maryland Bridge Etch 2 CLV)	Time unit**
00096 Issue Prosthodontic Teeth	1
00097 Open	
00098 Open	
00099 Open	

*Credit one CLV for each 6 minutes of actual, hands-on fabrication time. If a project takes 1 hour, take credit for LO CLVs.

Section III. DENTAL MATERIALS CODES

<i>Material no.</i>	Material
0 Open/nonmaterial code
1 Resin
2 Porcelain-Nonporcelain Alloy
3 Regular Gold U-IV) Nonp. Alloy + Resin
4 White Ceramic Gold
5 Yellow Ceramic Gold
6 Combination Metal
7 Nonprecious Metal
8 Open
9 Open



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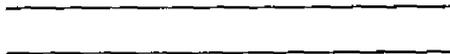
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