The ROYAL CANADIAN DENTAL CORPS Quarterly

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The RCDC Quarterly

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Department of National Defence
Ottawa 4, Ontario

Cover Photograph

Churchill in Winter

Editorial

LETS LOOK AT OURSELVES

To provide an effective military dental service we must be constantly aware of the public image of dentistry which we create. The simplest and most effective method of building this image is the personal relationship between dentist and patient.

The basis of good human relations is found in the Golden Rule, "Do unto others as you would have them do unto you", and this is the ideal that should be our aim. But are we attaining this lofty ideal? Can you answer these questions in the affirmative with respect to all members of the clinic staff?

-- Do they talk prevention and dental hygiene with patients?

-- Do they keep the premises, the uniforms and equipment spotlessly clean?

-- Do they have a friendly tone while answering the phone?

-- Are they considerate of the convenience of the patient in making appointments?

-- Are they congenial and sympathetic with patients in the office?

-- Are they diplomatic while discussing dependants fees and making appointments?

-- Do they reflect a sense of pride in their position?

And how are your dentist-to-patient relationships?

-- Are you courteous and tolerant with your patients?

-- Do you explain the proposed treatment plan?

-- Do you always discuss treatment plans with parents before proceeding with work on children?

-- Do you provide adequate post-operative care and handle emergency calls?

-- Do you refrain from criticizing the services of your confreres?

-- Do you refrain from guaranteeing your services?

You should be able to answer affirmatively to each of the above questions.

Why not review your clinic procedures now and see if there is room for improvement. It will benefit your practice and will enhance the image of the Corps in the eyes of the Service.

Editorial Note:

Our appreciation is extended to the Alberta Dental Association for providing of these suggestions.

A LETTER TO THE EDITOR

The RCDC Quarterly devotes this section to comments by readers on topics of current interest to Service Dentistry. The Editorial Board reserves the right to edit all communications to fit available space. Printed communications do not necessarily reflect the opinion or official policy of the Royal Canadian Dental Corps.

Occlusion in Complete Dentures

To the Editor:

I would like to comment on Major GDV Dippel's article "Comments on Occlusion in the Construction of Complete Dentures" published in a recent edition of the RCDC Quarterly (Vol. 9 No. 3).

Under his comments on monoplane occlusion, that in many instances the last molar encroaches upon the "Lower Molar Slope" is most valid. Is it not the number of teeth; ie, the last tooth being over the incline of the residual ridge, that causes the lower denture to shift anteriorly? Would this not occur regardless of the style of "occlusion"? Along this line, Fig 1 is misleading.

In his discussion on developing monoplane occlusion, does he feel that protrusive balance is not necessary or how does he feel about tipping of the dentures by the resulting anterior contact of monoplane occlusion in protrusive?

In relating to cusp height by averaging the difference between incisal and condylar readings, I assume that his face bow records always place the maxillary cast and occluding rim in the precise center of the instrument; that is, both vertically and antero-posteriorly.

Does the face-bow really position the casts on an articulator with the occlusal plane parallel to the base of the instrument? Is not a face bow record only relating the relationship of the maxilla to the condyles regardless of head position! In fact - we place the casts in the articulator with the occlusal plane related to incisal guide pin or the base of the instrument, as a convenience to using the instrument.

I would disagree strongly with the statement "The final balance prior to insertion of the dentures can only be, etc." What feelings does the author have as to "patient remounts"?

JE Ryan, DDS, MSc
Chairman
Division of Removable Prosthodontics
Faculty of Dentistry
University of Western Ontario

REPLY BY EDITORIAL BOARD

Dear Doctor Ryan:

The Editorial Board considers it a compliment that you have sufficient interest in this publication to expend the time and effort to comment on an article and thus stimulate further interest and thought.

Your comments with regard to the lower molar slope are valid and the Editorial Board was perhaps remiss in not requesting closer correlation of figure 1 to the text of the article.

Your observation with regard to protrusive balance is not entirely understood as Major Dippel specified that protrusive and face bow records and a laboratory remount are required and that there should be no contact of anterior teeth in centri

any excursion.

The Editorial Board agrees with your comment on cusp height but the author has qualified his earlier statement in the final sentence with regard to cusp height in that he acknowledges that the lateral cusp rise will be greater as it approaches the condyle and less as it approaches the incisal guidance table.

Your comment with regard to positioning the casts on the articulator could easily be incorporated into the second paragraph of the discussion of posterior teeth. It would appear that the problem here is that this matter was dealt with too briefly. There is no doubt what record the face bow makes but many readers may overlook the fact that it is also an instrument that places the maxillary cast on the articulator in a predetermined relation to the condylar element and an elective vertical position.

Your observation about final balance is well taken and it is agreed that a patient remount procedure is necessary.

This reply on behalf of the author is made to stimulate discussion and is independent of comments that the author may make.

AUTHOR'S REPLY

I recently received a copy of some correspondence between you and Dr Ryan of the University of Western Ontario.

Thank you very much for your comments in respect to my article. I must admit that on several points the article tended to be a little misleading.

Regarding Dr Ryan's comments: "Is it not the number of teeth, ie, the last tooth being over the incline of the residual ridge, that causes the lower denture to shift anteriorly? Would this not occur regardless of the style of occlusion?"

I agree with Dr Ryan that removal of the last tooth will reduce the anterior shifting regardless of the occlusion used; however, I feel that it is the exaggerated "Curve of Spee" that causes this anterior shifting of the denture. This exaggerated "Curve" is eliminated by removal of the last molar when it encroaches on the lower molar slope thus eliminating the "Ski Slope effect" which is often seen when fourteen denture teeth are indiscriminately added to a denture without thought as to the space available.

Your comments regarding protrusive balance explain my feelings exactly. May I add further that the patient must be instructed that he will not be able to incise food but will have to resort to using a knife and fork to break food into smaller pieces. In the cases that I have used this technique the patients have been problem "wearers" and usually did not wear their lower dentures. In most cases there was little mandibular ridge left and a great discrepancy existed between the mandibular and maxillary ridges, so that there was little incisive power to begin with and no great hardship resulted when the anterior teeth were left out of contact. I feel that protrusive balance must be attained in the molars even though there is no contact anteriorly. The anterior slopes of the mandibular cusps must be ground to compensate for the degree of condylar inclination.

Regarding cusp height I attempted to describe a method of selecting the closest stock tooth for the case, however, regarding Dr Ryan's question on the position of the casts in the articulator and cusp height, I think you described this very well and in sufficient detail.

Finally, Dr Ryan's criticism regarding my not advocating patient remounts is simply a misunderstanding. The article was written "The final balance prior to insertion...." Perhaps the article should have read "The balance prior to insertion.." The word "final" does not mean that no further balancing will be necessary. In an earlier draft I had included a paragraph regarding patient remounts and the fabrica-

tion of a mounting jig to maintain the face bow record, however, this was later deleted to reduce the size of article.

Thank you very much again for your support of this article and if you do pass on some of my comments to Dr Ryan please tell him that I appreciate his keen interest and I feel honoured that he took the trouble to write you his comments.

Major GDV Dippel, DDS
No 15 Dental Clinic
CFB Trenton

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IS DETECTION ENOUGH?

Captain HW Wilford, DDS

The Dental Profession is very concerned with the detection of oral cancer and other destructive lesions of the mouth. The follow-up procedures for these lesions however, are often a neglected aspect of dental treatment.

The following case report stresses the importance and demonstrates the need for thorough follow-up care after detection of an oral malignancy.

Case Report

The patient, a healthy 45 year old white man, presented himself for a dental examination to record his oral condition on release from the Canadian Forces. The examination revealed a soft tissue lesion in the midline of the lower lip. The patient indicated that the lesion had been present for ten to twenty years during which time the lip had periodically split and healed. He had been informed that it was possibly a concentration of granulation tissue, but the current size, hardness and induration of the lesion indicated that a biopsy should be performed involving the total removal of the lesion. There was no palpable lymphadenopathy.

The following day the patient reported to Captain D Jones at the Dental Clinic, Canadian Forces Base Shilo for biopsy. It was apparent that excisional biopsy would involve the exterior portion of the lip so the patient was referred to an oral surgeon at Deer Lodge Hospital in Winnipeg, where adequate equipment and techniques were available. The specialist performed a biopsy one week later and informed the patient that he would be contacted if further treatment was necessary. The pathologist's report revealed that the lesion was an epidermoid carcinoma. The dental officer contacted Deer Lodge Hospital two weeks later to learn of the patient's status, but was informed that the Hospital was unable to contact the patient to arrange complete removal of the lesion. The patient's address on release obtained from CFB Shilo, was a small town in Manitoba but the town postmaster stated that the person was not registered with the post office nor did the telephone office have the patient's name in new listings for the area.

Subsequent inquiries at CFB Shilo orderly room revealed by hear-say knowledge that the patient might be at a scout camp at Clear Lake, Manitoba. The RCMP were asked by CAPT Wilford to locate the patient if possible. The police expressed little hope of finding the patient among the hundreds of campsites in the area. Two days

later the patient, still unaware of the biopsy results, was located and instructed to contact the dental clinic in Winnipeg.

The Commanding Officer of 14 Dental Unit, immediately arranged a surgical appointment for the patient and the lesion was removed with minimal disfigurement to the patient's face.

The patient is now undergoing radiation treatment at the Manitoba Cancer Clinic but indications are that the surgery was a success.

Summary

This report points out the need for follow-up action to ensure the treatment is completed. In this case a great deal of tracing was necessary to locate the patient, but had this not been done, the patient would likely remain unaware of his condition and the surgery might have been deferred too long.

* Editor's Note

The following is in part a commendation by DGDS in regard to this case.

"The example set by CAPTs Wilford and Jones in the early detection of cancer and the measures instituted for its treatment provide a great source of pride and gratification for all of us. Their actions have quite possibly extended the life expectancy of this patient and at least spared him considerable disfigurement."

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THE RCDC IN FORT CHURCHILL - OVER AND OUT

Captain KPH Buchholz, CD, DMD

Several articles on this northern outpost have appeared in the Royal Canadian Dental Corps Quarterly, including a very interesting historic review by LCOL LR Pierce, which covered activities of the dental clinic to 1965.

Major HK Meisner took over the now one-operator clinic in 1964 with CPL N Cable and Mrs Clark. CPL Cable was relieved in 1965 by CPL E Bussell. Although most of the military personnel had left the area by 1964, 150 officers and men of the RCN and their dependants remained in Fort Churchill. The combined populations of Churchill and Fort Churchill did not decrease when the camp was turned over to the Department of Public Works in 1964, since many civilian agencies increased their staffs and new departments had moved in. The dental officer was the only dentist in the community.

The Province of Manitoba took over the hospital buildings in 1964 and formed the complex into Hospital District No 37. The dental clinic was an integral part of the hospital and on many occasions patients were treated under general anesthetic. Responsibility for the dental clinic at this time proved to be a bit confusing. The hospital authorities thought it belonged to them, as they had taken over the whole complex. The maintenance of equipment, provision of supplies and administration were done by No 14 Dental Company, while building maintenance was provided by the Depart-

ment of Public Works and CFS Churchill provided communications and transportation.

Major Meisner said "good-bye" to Fort Churchill in 1966 and Mrs Clark was replaced by Miss Yvonne Beattie.

Captain Buchholz arrived shortly after Major Meisner's departure and was welcomed to Churchill by CPL Bussell. It was like coming home - only a short four years ago he had left Churchill. But what a change! Churchill townsite was easy to recognize even though some of the old buildings were gone and a few new ones were evident. Two piers had been added to the harbour, a new Legion Building had been erected, a new Mission Hall housing a museum, and a modern school were under construction. Churchill's two hotels, the "Hudson" and the "Churchill" were still the same as was the Hudson Bay Store. The "S-M" however, was enlarged and newly renovated.

The only road to Camp was in fair condition and busy as ever. The military site, now CFS Churchill looked the same, so did Akudlik, the Eskimo village, previously known as Camp 20. The gate into the camp was gone, and the Provost shack on the left was now occupied by the RCMP. The arena, hospital and administration building were still the same, except that more shingles were missing from the buildings. Fort Churchill's only store, the "Commissary", had become a Hudson Bay Store. The Officers' Mess had become the Aurora Club, and the Sergeants' Mess was now called the Borealis Club, while the Rank and File Lounge had become the Youth Club.

The former Defence Research Northern Laboratory was now jointly operated by Pan American Air Lines, National Research Council and Churchill Research Range. It was a busy and humming place with scientists from all over the world using the enlarged and modernized range facilities.

Several buildings had been converted into dormitories for Eskimo students of the Vocational Training Center. CVC (Churchill Vocational Center) has training facilities for about 200 students. The Eskimo ladies learn to cook white man's style, and trained in home economics, typing and nursing. The young men are taught welding, equipment repair, woodwork, cabinet making and house building.

Dental treatment was also provided for the students and this proved to be very interesting. Many Eskimos were very tooth conscious and had beautiful teeth with very little decay, but almost all of them had some orthodontic problems. In contrast others were indifferent, loved sweets and usually had rampant caries.

Many Indians from "down the line", about 200 miles along the CNR tracks also came in for emergency treatment. Camp 10 had been relocated next to Akudlik, on the road to Goose Creek, where the government had built new homes for the Indians and this too added to the clinic work load. Train days held many surprises when patients from the Kettle Rapids construction site came for emergency treatment. It was a very busy dental practice.

LCOL W Anglin CO of No 14 Dental Coy and his wife visited Churchill in 1966. It was a short visit and the weather was not very pleasant. MWO R Stewart spent a few days in the clinic to perform needed maintenance to the equipment. As ever, the Christmas season was a busy and long social event, especially since it heralded Centennial Year.

1967; Centennial Year kept everyone busy with fund raising for community projects. CAPT Buchholz took annual leave and was replaced by CAPT F Harreman.

LCOL W Anglin and LT R Bowness were visitors in the spring, unfortunately too early for fishing, but every visit was a welcome break in the otherwise routine schedule.

Rumours that the Naval Radio Station might close caused a rush of people seeking dental treatment since everyone thought the area would be left without dental

service. The unfortunate illness of CPL Bussell compounded the problem but the very efficient and devoted service of Miss Yvonne Beattie kept the clinic going. The arrival of SGT E Knoll was a very much appreciated relief.

The arrival of summer and the ice break-up brought a new season and ships from all parts of the world came to load grain. Mosquitoes and black flies also came to make the short summer miserable. The fishing was good but not easy. Every fish was hard earned from the battle with insects and the treacherous waters of the Churchill River. CAPT D Brown came to take charge while CAPT Buchholz was on leave and during Miss Beattie's holidays, Mrs C Colleaux came to have a taste of northern hospitality.

The arrival of Dr M O'Neil the dentist with the Department of National Health and Welfare, in October 1967, was a welcome event.

As Centennial Year drew to an end, the question - when is CFS Churchill closing? - became more acute. Final word came in April 1968, which meant closure of the Dental Clinic.

With the arrival of LCOL Anglin and CAPT H Doyle on their final visit 15 May 68, No 8 Dental Clinic was about to phase out. For the next two days, the inventory was checked and all equipment turned over to Department of Public Works. The not very impressive and informal sign-over ended a period of service to the community, and with the departure of CAPT Buchholz, CPL Bussell's release to stay in Fort Churchill and Miss Beattie's posting to Winnipeg, No 8 Dental Clinic ceased operation.

It was with regret and a heavy heart that the last RCDC personnel in Churchill said "Good-bye" to so many friends and to the really true northern hospitality where weather conditions and geography bring people closer together.

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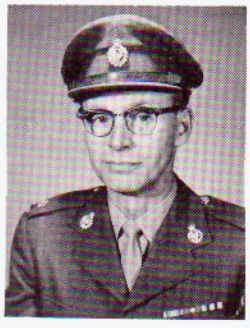


PINLEDGE RETAINER

Major CL Gullekson, DDS

The aim of this paper is to present the pinledge technique which will probably be used to a much greater degree in the future. Thoughts, suggestions and techniques presented in the article have been gathered from various dental text-books and journals, but mainly from information gained while on course in Ann Arbor, Michigan.[1,2,3,4]

Advantages

1. In anterior fixed bridges, stability and esthetics must be given equal consideration. The pinledge when compared with conventional retainers, excels in both.

   a. Esthetically it allows for unblemished labial enamel.
   b. It requires the least cutting of tooth structure of any anterior retainer.
   c. Retention, using present techniques which allow for deeper more strategically placed pinholes, exceeds that of more extensive retainers.
   d. Less chair-time is involved in its construction.
   e. The pinledge lends itself well to indirect techniques.

Indications

In the construction of maxillary and mandibular anterior replacements, the

pinledge can be used singly or in multiple splinted abutments.

2. Pinledge retainers are best suited for anterior teeth having some bulk in the incisal third, but can be placed on thin teeth if the occlusion is favorable.

3. Mouths of low caries index provide the most ideal cases.

Preparation

1. Pinledge preparation is a delicate operation which must be planned using surveyed diagnostic casts and bite-wing radiographs.

2. For retention, pinholes must be of sufficient depth ($2\frac{1}{2}$ - 3 mm) and be positioned so that the pulp is not endangered.

3. Most steps are best accomplished at moderate speeds using a variety of stones and burs.

4. Preparations may be uni-lateral or bi-lateral, ie: involving both mesial and distal surfaces, or a single proximal surface.

Procedure

Uni-lateral on a maxillary central incisor with the mesial surface adjacent to an edentulous space.

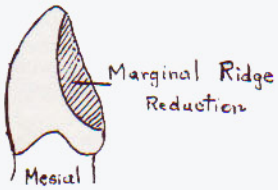


figure 1

1. Proximal Surface (figure 1 and figure 2)

   a. Using diamond discs or stones reduce the proximal surface at an angle of 45° to the lingual surface from a point midway on the cingulum up to, but not including, the incisal angle.

   b. This reduction includes the contact area and reaches the labial surface at this point only.

   c. Reduction must be compatible with the path of insertion.

   d. It is not always necessary to go through the enamel, but one must provide for sufficient bulk of gold on the retainer.

2. Lingual Surface (figure 2)

   a. Using a knife edge wheel define the distal boundary of the preparation by trenching to a depth of from 0.5 to 0.8 mm extending to and frequently on the remaining marginal ridge.

   b. Remain clear of the incisal edge.

   c. Reduce the lingual surface unifromly to the predetermined depth using a diamond wheel or pear shaped stone.

   d. Check clearance using one thickness of green sheet wax. If the bite is open a lesser reduction is required.

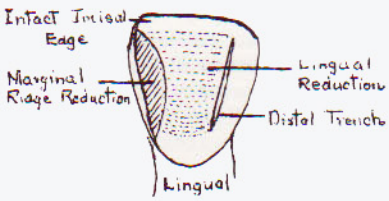


figure 2

3. Ledges (figure 3)

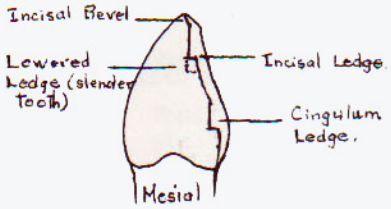


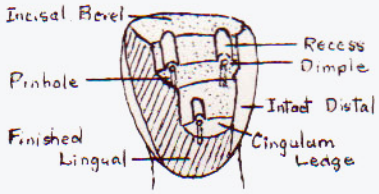
Figure 3

a. Prepare incisal and cingulum ledges of at least 1 mm width to cross all of the outlined lingual surface using high speed and No 57 carbide burs plus small diamond cylindrical stones. The position of the incisal edge will vary depending on the tooth thickness. The cingulum ledge is placed at the crest of the cingulum.

b. On the central and lateral incisors both ledges are made perpendicular to the long axis and the pulpal wall and parallel to the path of insertion.

c. On the cuspid the incisal ledge is made to conform to the outline of incisal edge. (See figure 5)

4. Indentations (or Recesses) (figure 4)



Central (Unilateral)

Figure 4

a. Using a high speed No 57 carbide bur cut recesses to a depth of one half bur diameter and parallel to path of insertion.

b. Locate the incisal recesses just inside the marginal ridges between dentino-enamel junctions and the pulpal horns.

c. Locate a single cingulum recess slightly off center toward the edentulous space. (Two cingulum recesses may be used placed 2 mm apart.)

5. Pinholes

a. Create dimples just through the enamel, centered in the recesses, using a high speed No ½ round bur.

b. Pinholes whenever possible are placed parallel to the long axis of the tooth for pulp protection. However, in a thin tooth placing the pins parallel to the incisal half of the labial surface gives better and safer retention.

c. Tapered (figure 4)

(1) Using a straight handpiece for upper and contra-angle for lower, sink first pinhole to a depth of 2½ - 3 mm with a #700 tapered fissure bur.

(2) Use a #600 finishing bur to remove serrations.

(3) If working free-hand, insert a pin in completed hole and line up the next pinhole using this as a guide.

(4) The need of a paralleling device will depend on the bridge span, operator skill, and whether tapered or parallel pins are being used.

Parallel

(1) The vast majority in this instance will require a paralleling device. Several such instruments are available, ie: Loma Linda Parallelemeter, Chayes Dental Instrument Corp., Danberry, Conn. Pontostructor, JF Jelenko and Co., Inc., New Rochelle, NY.

(2) Prepare pinholes to a depth $2\frac{1}{2}$ - 3 mm using a twist drill usually of size 0.70 mm. (Table 1)

SIZES FOR PARALLEL PIN TECHNIQUE				
Twist Drill Sizes	mm	Impression Pins mm	Platinum Iridium Pin	(Twist drill) Inches
5/0	0.50			.020
4/0	0.60	0.59 x 6.5	0.55 x 5	.024
3/0	0.70	0.69 x 6.5	0.65 x 5	.028
2/0	0.80	0.79 x 6.5	0.75 x 5	.032
0	0.90			.035
1	1.05			.041

TABLE 1

6. Incisal Bevel and Finishing Line (figure 4)

a. Bevel the incisal edge at a 45° angle extending from the proximal cut to the distal boundary and from the prepared lingual surface to a point where all of the included incisal edge is protected.

b. Pinholes may be bevelled.

c. Complete the lingual area which lies cervical to the cingulum ledge blending it in with the proximal cut. Finish as a chamfer and accentuate the margin by using a small round stone or finishing bur.

The uni-lateral preparation is now complete.

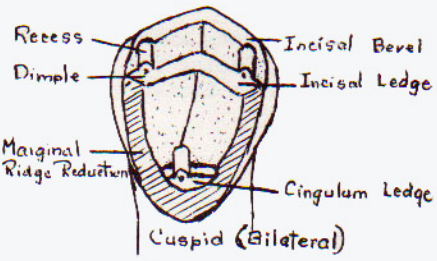


Figure 5

Variations

a. Bi-lateral preparation (figure 5)

b. Cuspid preparation (figure 5)

c. Combined pinholes and grooves.

Retainer Fabrication

1. Direct

a. With Plastic Pins:

(1) Prepare tapered pinholes.

(2) Insert petrolatum lubricated Williams Plastic Pins which are of the same dimensions as the No 700 tapered fissure bur.

(3) Cut the pins for 1 mm extension beyond the depth of the hole.

(4) Form a retentive head on the pins with a warm spatula.

(5) Apply a thin layer of cold-cure acrylic (Dura-lay) to stabilize the pins. (or use inlay wax alone.)

(6) Apply additional wax, carve and cast.

b. Without Plastic Pins:

(1) Lubricate pinholes.

(2) Apply inlay wax and partially carve the pattern.

(3) Heat a suitable instrument (explorer or Pinwaxer) and use it to flow and force the wax to the depth of the pinholes.

(4) Carve and cast the retainer.

2. Indirect

a. Rubber Base Only:

(1) Prepare a tray

(2) Apply rubber base into the pinholes using a fine tip syringe combined with a blast of air.

(3) From the impression pour a stone die, wax up and cast the retainer.

b. Combination of Rubber Base and Tapered Plastic Pins:

(1) Proceed as for direct pattern above (with plastic pins) to the fourth step.

(2) Tray must be sufficiently oversize to allow for pin extension.

(3) Inject rubber base in line with the pins to prevent displacement.

(4) Remove the impression along the axis of pinholes.

(5) Pour up a stone die, wax up and cast the retainer.

c. Combination of Rubber Base and Parallel Steel Pins:

(1) Prepare pinholes with a 0.70 twist drill.

(2) Insert lubricated steel impression pins (0.69 x 6.5) into the pinholes.

(3) Using an oversize tray, take a rubber base impression.

(4) If Silver Plating the impression:

(a) Leave the steel pins in the impression. (If some stay in the tooth when the impression is withdrawn, simply replace them in

the rubber base without fear of distortion.)

(b) Silver plate and pour up the die.

(c) Remove and discard the steel pins.

(d) Insert lubricated, threaded Platinum Iridium pins (0.65 x 5) into the die.

(e) Apply a thin layer of cold cure acrylic to the lingual surface of the die to stabilize the pins.

(f) Apply inlay wax, carve and cast the retainer.

Note

(i) If steel pins are used, always electroplate. The Platinum Iridium pin in the procedure becomes part of the casting.

(5) If a Stone Die is Desired:

(a) Remove steel pins from impression and substitute nylon (Perlon) pins of identical size.

(b) Heat the pins using a hot spatula.

(c) Pour a stone die.

(d) Apply wax, carve and cast the retainer.

(ii) The casting is done in the normal manner except that the burn-out must be started in a cold furnace. In this instance the pin is cast.

Conclusion

1. Regardless of what type of retainer is used it is essential that:

a. It be strong enough to withstand functional forces.

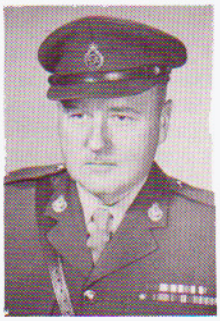
b. The preparation does not endanger the pulp.

c. It be esthetically acceptable.

d. The technique of construction can be carried out by the average operator.

The pinledge retainer meets all of these requirements with ease.

1. Tylman, S.D., Theory and practice of crown and bridge prosthodontics. St. Louis, Mosby, 1965. 1218 p.
2. Johnston, J.F., et al. Modern practice in crown and bridge prosthodontics. Philadelphia, W.B. Saunders, 1965. 420 p.
3. Lorey, R.E., et al. The retentive factors in pin-retained castings. J. Prosth. D. 17:271-276, Mar, 1967.
4. Lorey, R.E., and Myers, G.E. The retentive qualities of bridge retainers. Am. Dent. A.J. 76:568-572, Mar, 1968.



PRESENTING DENTAL HEALTH INFORMATION
A STUDY OF TWO METHODS

Major JVP Chatwin, CD, DDS, DDPH
Major JW Jolly, CD, DDS, DDPH

The need to provide dental health education to the Service member has been a constant concern of the Corps, but the value of some of the approaches has been questioned. One facet of the RCDC health education program has been the wholesale distribution of pamphlets particularly during Dental Health Week each year. The question is asked, how effective is the literature handout aspect of an educational effort? This question becomes more pertinent in view of the reduced availability of complimentary pamphlets and the rising cost of educational materials. Verbal communication between dentist and patient in the educational process is not enough. The dentist also needs educational materials in the form of leaflets, pamphlets, charts and pictures to reinforce what has been said.

It is generally accepted that hand-outs reinforce a message. Yet, in discussion with Dr McFarlane of Hall Commission fame, it appears that little work has been done in the field to prove that such is the case. After a review of the literature and discussions with the Health Educational Adviser at National Health and Welfare it would seem that to find answers specific to the dental field more work is needed.

Whealy[1] has pointed out that numerous surveys have been published about reading habits of the populace, and the effectiveness of print in general. She also noted that evaluations have been carried out by many departments of the Canadian Government but that these have been mainly in the area of pretesting the context for clarity, appeal, persuasive language, or format. There has seldom been a scientific follow-up by interview or questionnaire to ascertain whether pamphlet recipients did, in fact, gain in knowledge and consequently use it to alter their habits.

A survey found that the pamphlet "Good Eating With Canada's Food Guide" was successful as a source of information for many people and also served as an impetus for an examination of personal eating habits.

Waples, Berelson and Bradshaw are reported[3] to have found that even short periods (fifteen minutes) of reading can produce an attitude change which is measurable at the end of eight months.

Starkey[4] has demonstrated that simple methods of presenting information are as effective as more complex ones. Some work indicates that a mimeograph sheet is as effective as the glossy hand-out providing it is specific to the message. Starkey has also shown that individuals with a high education level gain more knowledge than do those with a low education level regardless of the method of instruction used. Eldersveld[5] has shown experimentally that the face-to-face discourse will always be most successful and may be necessary to reach the less educated--"especially since survey findings show that among those with Grade VIII education, only 43-48% are readers, as compared to 83-92% among those with college education". The education level of Canadian Forces recruits indicates that for the year 1966-67 74.9% would be considered as readers and they would therefore gain from pamphlets alone if they can be motivated to read them.

In a mental health research project Payne[6] found that the greatest effect occurs when the pamphlet is given in combination with a lecture on the same topic

Klapper[7] quotes Berelson who in 1948 came to the pessimistic conclusion that: "Some kinds of communication on some kinds of issues, brought to the attention of some kinds of people, under some kinds of conditions, have some kinds of effects". The correct set of variables for the Service situation must be determined if positive results are to be achieved in the RCDC program. A review of the material selected over the years for Corps programs indicates a shotgun approach in the procurement and distribution of health educational materials. Perhaps if hand-outs do just reinforce a message then the Corps should concentrate on one or two aspects of dental care and direct the literature on these selected lines.

How effective then is the literature hand-out aspect of a Health Education program? Based on the hypothesis that a pamphlet specific to dental health which is reinforced by a verbal message either on its contents or on the same general subject is valuable and that the pamphlet unsupported by a lecture has reduced value, a study was undertaken to determine whether two methods of presenting dental-health information have value in the younger age groups, and if they do which is the better method.

Method

Pamphlet Material

The Dental Division, Dept of National Health and Welfare recommended and made available a supply of the pamphlet, "Tooth Test for Teenagers". This is a single sheet of folded paper with sketched dental illustrations and nine multiple choice questions on the centre two panels. The front has a dental cartoon and the back panel contains the correct answers to the questions asked inside.

Sample

Two bases containing a number of grade 8 and grade 10 classes were selected. These two grades were chosen since surveys show that these two levels evidence the highest interest in dental health with girls more interested than boys, as might be expected. For comparison three groups of young recruits were incorporated in the study. Specifically, three grade 8 classes from Canadian Forces Base Rockcliffe, three grade 10 classes from Canadian Forces Base Petawawa and three recruit classes undergoing training in Camp Petawawa comprised the sample population, and were grouped as follows:

Group A : 1 grade 8, 1 grade 10, 1 Service group
Group B : 1 grade 8, 1 grade 10, 1 Service group
Group C : 1 grade 8, 1 grade 10, 1 Service group

Phases of Study

Phase I

Group A samples were given a 30-minute lecture based on and specific to the pamphlet "Tooth Test for Teenagers" and, after the lecture they were given the pamphlet for home study.

Group B had a general dental health lecture and were then given the pamphlet and instructed to read it. No specific reference was made to the pamphlet or its contents during the lecture.

Group C received neither lecture nor pamphlet and were used as control.

Phase II

Two weeks after the lectures were given all three groups were tested using a printed questionnaire reproducing the nine questions found in the pamphlet. Table 1

TABLE 1

ORAL HYGIENE QUESTIONNAIRE

1. What is the main dental problem for teenagers?

   A. tooth decay ( )
   B. gum disease ( )
   C. crooked teeth ( )

2. Most people lose their teeth through decay.

   True ( )
   False ( )

3. Sugars and starches cause tooth decay by:

   A. weakening the gums and letting infection in ( )
   B. forming acids which dissolve enamel ( )
   C. being deficient in vitamins and minerals ( )

4. Eating good food makes the enamel of your teeth stronger.

   True ( )
   False ( )

5. Tooth decay can be largely prevented by (select two):

   A. brushing teeth twice a day ( )
   B. cutting down on sugars and sweets ( )
   C. drinking more milk ( )
   D. having decayed teeth taken out ( )
   E. brushing teeth after every meal ( )
   F. chewing gum ( )

6. Your dentist can help you to protect your gums, if you visit him regularly, by:

   A. frequent X-rays ( )
   B. removing tartar deposits and cleaning your teeth ( )
   C. checking your teeth for cavities ( )
   D. applying sodium fluoride to your teeth ( )

7. The best dentifrice is:

   A. plain water ( )
   B. an ammoniated dentifrice ( )
   C. baking soda and salt ( )
   D. the least expensive ( )
   E. a stannous fluoride dentifrice ( )

8. If you can't brush your teeth after meals, the next best thing is to:

   A. eat an apple ( )
   B. chew gum ( )
   C. rinse your mouth with water ( )
   D. use a toothpick ( )

9. The most important reason for maintaining good teeth.

   A. to keep up bodily resistance to disease ( )

B. for a good smile and a pleasant appearance ( )
C. it costs less to maintain than to repair ( )
D. oral hygiene is part of general cleanliness ( )
E. for chewing food efficiently ( )
F. for clearness in speaking ( )

Results

Shown at Table 2 are the numbers of correct answers tabulated for the nine questions.

TABLE 2

CORRECT ANSWERS

CORRECT ANSWERS	0	1	2	3	4	5	6	7	8	9	% CORRECT
TEENAGED SOLDIERS											
A - n-26	0	0	0	0	0	2	10	7	1	6	77.3
B - n-29	0	0	2	1	6	7	9	3	1	0	59.3
C - n-37	0	0	1	3	7	10	10	4	2	0	57.9
n=92											
GRADE 10 STUDENTS											
A - n-28	0	0	0	1	0	3	3	12	5	4	77.7
B - n-24	0	0	0	1	2	6	7	6	2	0	65.2
C - n-24	0	0	1	1	4	11	3	4	0	0	56.4
n=76											
GRADE 8 STUDENTS											
A - n-33	0	0	0	0	1	2	7	8	11	4	79.4
B - n-28	0	0	3	1	2	9	4	6	2	1	61.5
C - n-32	0	0	0	1	11	10	6	4	0	0	55.9
n=93											

A Chi square evaluation of the data in Table 2 was made. A comparison of the three groups showed that the use of the pamphlet plus a specific lecture on its contents very significantly improves the results achieved on a test of that content after a two-week period when compared with the use of the pamphlet and a non-specific lecture or a control group who had neither pamphlet or instruction. $X^2 = 11.88$ with 1 df and was significant at the 99% level with 2 df.

Comparing the group who received the pamphlet and a specific lecture with the control group, X^2 11.88 with 1 df and was significant at the 99.9% level.

Comparing the group who received the pamphlet and a non-specific talk with the control group, a significant improvement was found at the 95% level and X^2 4.87 with 1 df.

Finally comparing the group who received the pamphlet and a specific lecture with those who received the pamphlet and a non-specific lecture, an improved test result was noted but it was not significant at the 95% level of confidence.

In summary, the results showed:

1. the use of a pamphlet and a lecture specific to its contents gave the most significant improvement in test results over the control group.

2. the group who heard a non-specific lecture and presumably read the pamphlet also showed a very significant improvement over the control group.

Conclusions

This study shows that reading a pamphlet does have some value, but that when the reading is reinforced by a specific message on its contents the value is greatly increased. The results would indicate that the indiscriminate handout of dental health literature is of little value in the Corps Preventive Dentistry program.

It is recommended that:

1. dental officers and hygienists should be discriminate in issuing dental health literature to Servicemen, and

2. pamphlets whether given to individuals or groups, should be accompanied by a brief talk specific to its content. In this way best value can be obtained from the material,

3. the RCDC acquire or produce pamphlets that will be aimed specifically at increasing the servicemen's knowledge of prevention of dental ills, and the part that his base dental clinic and staff play in improving his dental health.

Summary

The results obtained from young persons on a test of dental health knowledge two weeks after receiving a pamphlet and a lecture, either specific or non-specific to its contents, were significantly better than the results of a control group using only their general knowledge to answer the same questionnaire.

The best results were demonstrated by the group who received the specific lecture on the pamphlet.

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A DENTAL CAREER

WO JAJ Fret

Last year the DND school at Canadian Forces Base Rockcliffe started a programme of career counseling for grades seven and eight. When the school nurse approached the dental clinic for assistance in presenting information about the dental profession, the opportunity to spread "the gospel" and wave the flag of the RCDC was welcomed. This is what evolved.

There were two groups of about 15 pupils each and it was decided to made two presentations to each group.

For the first meeting, the dental therapist went to the school and gave a talk during which he outlined the different careers associated with dentistry, starting with the functions and career opportunities of the various auxillary groups. Naturally, a military career in the RCDC was described just in case some bright young fellow wanted to follow his father's footsteps in the Canadian Forces. This was followed by "How to Become a Dentist", which constituted a presentation of what dentistry is all about and its importance in the much larger field of general health. A film was obtained from the RCDC School entitled "Patterns of a Profession". This is an excellent two reel colour film, ideally suited for the purpose. Indeed it had quite an impact on the students. If time is limited the film presentation may be restricted to the first reel as it is an entity on its own. Anyone wanting to use this film however should preview it, as the portion regarding dentifrices should be suplemented with suitable comment to update this information.

The second meeting was a visit to the dental clinic where the functions of the various auxillary groups were reviewed and some of these demonstrated. A model was poured, an x-ray was taken, the pupils saw plastic and rubber being "made" right in front of their own eyes. The sound of a "drill" at 300,000 RPM started questions flowing as the mention of the word turbine, on an "Air Force Station" was magic. The dental therapist gave a tooth-brushing demonstration after which each child received a pamphlet on mouth care and some disclosing tablets which the students referred to as "the red pills".

As a follow-up on these meetings the students were required to write a short essay for their teacher about their visit to the clinic. This programme was so well received by pupil and teacher alike, that a repeat performance has been requested. Needless to say the RCDC in Rockcliffe will oblige.

DIVISION OF DENTAL SERVICES, CFHQ--CIRCA 1969

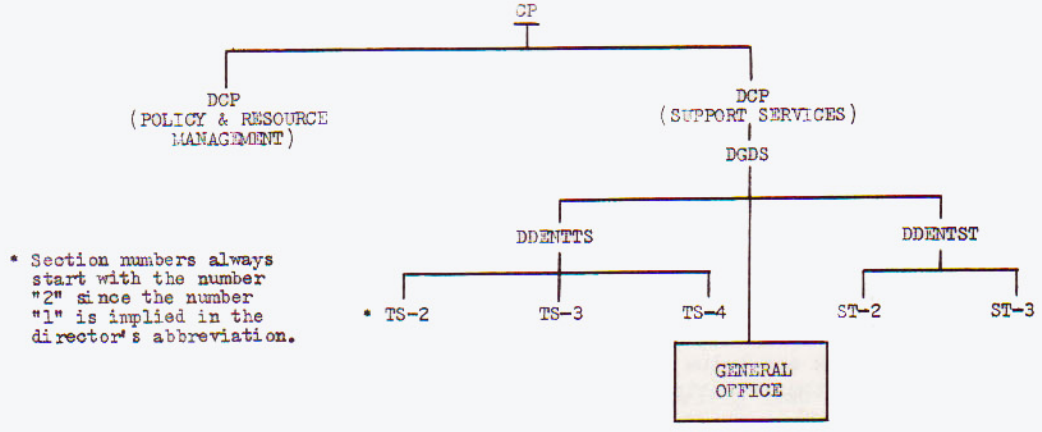
Captain E Clark, BEM, CD

Beginning with the initial stride towards the unification of Canadian Forces in 1964, many changes have been made within the organizational frame of CFHQ. Some changes have been obvious; others have been less noticeable, although exerting as much influence on daily routine as those that are by their very nature more self-evident.

In consequence of these alterations, a brief exposition on the present-day structure of the Division of Dental Services as an entity within CFHQ may help those in other regions gain some understanding of its structure. Additionally, this article may be of guidance to those fortunate individuals who may one day serve at CFHQ.

The principal dental organizational element at CFHQ is the Division of Dental Services having as its head the Director General of Dental Services (DGDS). Many will not realize that it has only been since the unfication process began in October, 1964 that there were any guide lines to determine whether such an element would be headed by a Director General or Director. As the organization of the RCDC evolved, it was headed initially by a Director and then, some years before unification, by a Director General. The responsibilities of each of these appointments were never as clearly defined as they now are and once the "key" of rank is inserted into the organization's lock, it soon becomes evident to the newcomer which element has as its head a Director General and which has a Director.

For example, DGDS is part of the Chief of Personnel Branch. The CP Branch is headed by a Lieutenant-General (or equivalent) and has at the moment two Deputy Chiefs in the equivalent rank of Major-General. Next in the organization structure is the Division headed by a Director General in the rank of Brigadier-General. There are as many Divisions within a Branch as are required and they are always headed by a Brigadier-General. Within a Division are one or more Directorates with an officer of the equivalent rank of Colonel in charge with the title of Director; forming part of each Directorate are one or more sections headed, usually, with a Lieut-Colonel or equivalent as a Section Head. The attached diagram depicts the current set-up of the Dental Division which conforms in its basic structure to that of all other Divisions at CFHQ.



In addition to there being ranks stipulated for each level of Divisional organization there are also specific terms of reference or "reasons for being". These outline in brief terms, the responsibilities of the DG to the Branch Head and in turn the responsibilities of Directors to the DG and the Section Heads to the Directors. In the day-to-day scramble to meet commitments, it is sometimes necessary to cross these "lines" but in the main, the activities assigned to either of the two Directorates within the Dental Division are within the areas defined in the terms of reference. It might be added that these guide lines are being constantly revised to ensure that functions and scope of activities are clearly defined.

To give further dimension to the structure and functions of a Division, it would be apropos to describe in this narrative the responsibilities of DGDS to the Chief of Personnel, and the responsibilities of each dental directorate to DGDS. In all cases, the responsibilities listed will be the major activities only.

Stated succinctly, DGDS is responsible to CP for all matters pertaining to the dental health of the Canadian Forces. This definition includes documentation, statistics, material, clinic accommodation and liaison with the dental profession, universities, other Government departments and dental corps of other countries. He is also head of the Royal Canadian Dental Corps.

An outline of the major responsibilities of the two Directorates within DGDS would include such subjects as shown hereunder.

Director Dental Staffing and Training (DDENTST)

DDENTST is responsible to DGDS for the organization of the dental services, its establishments and organizational charts; manning; career planning; recruitment; professional and technicial training, including trades specifications and courses; DOTP annual quota and practical phase training; mobilization planning and the RCDC Reserves.

Director Dental Treatment Services (DDENTTS)

DDENTTS is responsible to DGDS for dental treatment service including preventive dentistry programming; dental documentation and statistics; radiation hazards; provision and maintenance of, and accounting for, dental material; dental clinic accommodation; and financial estimates and encumbrances.

There are many other functions in which both Directorates become involved but those listed include the principal activities of each side of the dental "house" at CFHQ.

To provide administrative support, a small staff of military and civilian personnel is employed by the Division. The general office (Orderly Room) is the focal point serving as it does as a file and correspondence registry. Duties and personnel are assigned in keeping with the needs of each Directorate.

Although not forming part of the Dental Division, there are two other elements within the CP organization that have much to do with the careers of RCDC personnel. Both are "Career Managers". One is embodied within Director General Postings and Careers (DGPC) and is identified as Director Postings and Careers, Air Services/Dental Officers and Men (DPCAS/DOM). The other is the Director Senior Appointments (DSA) and is part of Director General Senior Appointments (DGSA).

The careers of LCOLS and above in the RCDC are administered by a DSA and personnel of Major's rank and below by DPCAS/DOM. In both spheres, DGDS has established close association thus ensuring effective communication in the vital area of career advancement.

The RCDC News

CANADIAN FORCES DENTAL SERVICE SCHOOL

Effective 1 Jan 69 the RCDC School was redesignated as the Canadian Forces Dental Service School (CFDSS). This change is in keeping with the policy of converting, where applicable, unit titles to the more descriptive titles associated with the Canadian Forces.

DGDS and Unit Commanders Conference

The 19th annual Corps Conference was held in Ottawa December 4-6 with all unit Commanding Officers, LCOL Brick from Mobile Command and Major C Brown from Training Command in attendance.

Seated L to R - COL RHG Cunningham, BGEN BP Kearney, COL GR Covey, COL JW Turner, COL CM Cornish.
Centre Row L to R - LCOL G MacDougall, LCOL JW Fletcher, MAJ C Brown, LCOL JC Brick, LCOL NA Butcher, LCOL WH Harrington, COL GC Evans, LCOL LA Richardson, LCOL GE Windsor.
Back Row L to R - CAPT E Clark, MAJ PR McQueen, MAJ JVP Chatwin, COL LG Craigie, COL SG Bagnall, MAJ CA Casterton, LCOL LR Pierce, LCOL DH Protheroe, MAJ PL Griffiths.

Division News

Visits

LCOL JW Fletcher Staff Officer Dental Materiel attended the Dental portion of the Second Meeting of the Quadripartite Working Group/Medical Supplies held in London England 23 Sep to 27 Sep 68. He then proceeded to Germany and visited 4 Fd Dent Coy and 35 Fd Dent Unit during the period 28 Sep to 4 Oct 68.

MAJ JVP Chatwin visited the dental units in Europe in January to review the RCDC Preventive Dentistry Programme and demonstrate the self-preparation technique. While in Soest he addressed dental officers from four nations attending a Dental Officers Professional meeting organized by 4 Fd Dent Coy.

Sports

WO Sullivan skipped a team from CFB Uplands Curling Club to win a 3-game competition at Ottawa Hunt and Golf Club 18 Jan 69.

11 Dent Unit

Sports

Hunting

Using a Winchester 308, CWO Herb Bilbey downed three elk on the last day of the season. Herb ran into a family of elk near Calgary and, without even lowering his rifle, snapped off three heart shots.

Curling

LCOL Don Hillier, throughout the festive season, was barely able to resist the temptation to celebrate his wife accomplishing a feat beyond his capability. He is very proud to claim that he is the husband of a gal who had skipped her rink to an "Eight Ender".

12 Dent Unit

Memorial - Dr JS Bagnall - Book Collection

The dental staff of Victorial General Hospital, Halifax recently dedicated their library to the memory of Dr JS Bagnall. This honour is deeply appreciated by the Bagnall family.

Dental Officer Training Plan

OC DM Moore has been awarded the $1,000.00 Faculty of Dentistry Entrance Scolarship for the highest scholastic standing in the imperative university classes required for admission to the Faculty of Dentistry at Dalhousie University.

Preventive Dentistry - A True Story

Time: 11 Dec 68 1330 hours
Place: Dental Clinic, CFB Gagetown, N.B.

Major Cobb has just completed a description of fluoride protection to a platoon from 2 Bn RHC and has turned the group over to MWO Therrien for self-preparation and topical fluoride application.

MWO Therrien - "Has everyone got his toothbrush?"
Platoon SGT - "No Sir, only half the men."
MWO Therrien - "Why is this? They were all supposed to bring their toothbrushes."
Platoon SGT - "No Sir, we were told that only the single men were to have them and the married men did not need them."
MWO Therrien - "Double them back to their lines to get toothbrushes."

On checking out the situation, it seems that WO Shields' telephone call that morning had been taken with typical military efficiency. He asked the RSM to make sure that "every single man has his toothbrush".

13 Dent Unit

Special Events

CAPT TC Ringland lectured on Bacteriology to the Ontario Dental Nurses and Assistants at the Belleville Collegate Institute on 14 Nov 68.

On 19 Dec 68 COL RHG Cunningham also spoke to the same group on "Filling the Root Canal and Apiectomy at One Appointment" using the film "Immediate Endodontics and Periapical Surgery".

Guests of honour and co-hosts at 13 Dental Unit Christmas Party.

Down the ladder from the left -

MGEN AC Hull, LCOL WW Anglin, COL RHG Cunningham, COL HA Carswell.

14 Dent Unit

Curling - RB Jackson Trophy

On 18 Jan 69 ten rinks curled in the annual unit competition for the Jackson Trophy. Quite a number of non-curlers also attended and a fine evening get-together followed the bonspiel. A Shilo rink skipped by Capt Dave Jones and assisted by WO Henry King, Mrs Jones and Mrs King won the trophy and the runner-up rink was skipped by CAPT George Jacques with CAPT Herb Doyle, Mrs N Petersen and Mrs Jacques. CAPT Poy, CPL Scheer and their wives took the hard-luck prize home to Gimli.

Winners RB Jackson Trophy

Left to right -

WO Henry King

Mrs King

Mrs Jones

CAPT Dave Jones - skip

35 Fd Dent Unit

by SGT DT Moran

Duty Trips and Visits

LCOL JW Fletcher visited the unit from 2-5 Oct and provided much information on dental stores and equipment.

During the month of Oct the weather in the Lahr area was cool and very wet, the golf courses mushy and sometimes completely flooded. As nothing could be done about the weather the CO did the next best thing and headed a dental team to sunny Sardinia from 8-29 Oct. The team comprised of LCOL DH Protheroe, Major CM Mason, WO CH Adams, WO RW Lowery and PTE SA McEllistrum carried out the Preventive Dentistry Program for servicemen, examination of DND School children plus provided comprehensive treatment to servicemen and their dependants. It was reported that the trip was a complete success. There was no mention of "plush hotels" "golf courses" or "sun bathing".

Special Events

No 1 Clinic was the host clinic for the Annual Unit Christmas Party that was held on 13 Dec at the Adler Hotel in Reichenbach. The party was a roaring success, complete with Santa Claus who gave out gifts to everyone. The "Entertainment Committee" of 1 Clinic provided an enlightening skit on an average working day at the clinic -- suspicion confirmed! With plenty to eat and drink an excellent time was had by all.

Other clinics to participate in the Christmas festivities were 3 Clinic where CAPT Weeks entertained the clinic staff at his residence; 4 Clinic held an "At Home" where all RCDC personnel were dressed in Blues. And that just about ends the merry making for another year.

Leave

Several members of the Unit took to the hills during the Christmas Holiday. Among them were: Major Yvon Cyrenne, Captain Bob Fortier and Dr Malcom Stewart (Civilian NPF Dentist). All spent a few days skiing at Erdfendorf, Austria. Major Bob MacDonald tried the slopes at Lech, Austria. CPL Muriel Fletcher and Mrs Nancy Bennett (Civilian Dental Assistant) were skiing at the US Recreation Center Bertchesgarten. All returned safe and sound with no broken bones. WO Bob Lowery was thinking about going skiing but chickened out and asked to have his leave cancelled when the snow fell.

Marriage

CPL Tom Girdlestone and CPL Betty Price exchanged marriage vows on 16 Nov at Toronto, Ontario. Betty was the senior corporal and Tom was a little worried at how he was going to assume his proper place as "Head of the house" until CFHQ came to his rescue and decided to give Betty her release effective 14 Dec. Our best wishes for a long and happy marriage go out to this fine couple.

Accommodation

Major MacDonald and SGT Giroux vacated their temporary clinic accommodation at Chievre near SHAPE HQ and moved into the permanent dental clinic in the SHAPE International Hospital.

Training and Conferences

LCOL DH Protheroe attended the Annual DGDS Conference from 4-6 Dec and reports that it was very informative and interesting.

Dental Officers taking advantage of Seminars in General Dentistry sponsored by the US 2nd General Hospital at Landstuhl, Germany from 24-25 Oct were: MAJ JLY Cyrenne, MAJ JPA Legendre and CAPT BH Weeks.

Another General Dentistry Seminar this time sponsored by the US 97th General

Hospital at Frankfurt, Germany from 4-7 Dec was attended by: CAPT RF Cooper, CAPT JAR Fortier and CAPT WD MacKenzie.

SGT Dan Hardy has returned after topping the D Lab Tech Pay Level 6 Course at the RCDC School - well done Dan.

CPL Dick Gratton has successfully completed the DEM Tech Pay Level 5 Course at 1 DED Petawawa. During his stay in Petawawa Dick's wife presented him with a bouncing baby girl -- congratulations on both counts Dick.

Sports

CAPT JAR "Flash" Fortier and LT JP "Boom-Boom" Carrier are both members of the Lahr Officers' Mess hockey team -- more details to follow in the next Quarterly after they play their first game.

The curling rink in Lahr is due to open early in the New Year and the unit curlers have decided that the "Other End" of the two part Horse Trophy, that is well hidden in the CO's office, is going to be returned to its rightful owner - 4 Fd Dent Coy in return for the Horse's Head.

Miscellaneous

3 Clinic personnel lead the pack in station activities with CAPT Brian Weeks as Deputy Mayor of 3 Wing Community Council, CPL Norma Boles and PTE Betty Tucker are both on the Entertainment Committee of 3 Wing Corporals' Club - that leaves MAJ Cyrenne to look after the clinic.

4 Clinic reports only one active member of the clinic and that is CAPT Bob Cooper who is a member of the 4 Wing Officers' Mess Entertainment Committee.

1 Clinic has Major Mason as Vice President of the Lahr Toastmasters Club and WO Collin Adams is a Councillor in the Lahr Community Council.

Judging from the number of new cars at 1 Clinic one has to think it is either getting close to rotation time or some were fortunate enough to benefit from the pay raise -- lets just say it is nearing rotation time.

* Editors Note

SGT Moran is one of the newly appointed unit associate editors. This news submission is published as submitted as a demonstration of the new talent that the Editorial Board now has to assist them.

4 Fd Dent Coy

Field Exercises

HQ, five clinic detachments and a laboratory section participated in the 2 Br Div "Exercise Keystone" from 21 Oct to 2 Nov 68.

Conferences and Meetings

CAPT GR Nye attended the USAREUR General Dentistry Training Seminar in Landstuhl, Germany 24-25 Oct 68.

LCOL GE Windsor attended a No 1 Dental Group (RADC) study conference in Paderborn 29 Nov 68.

Special Events

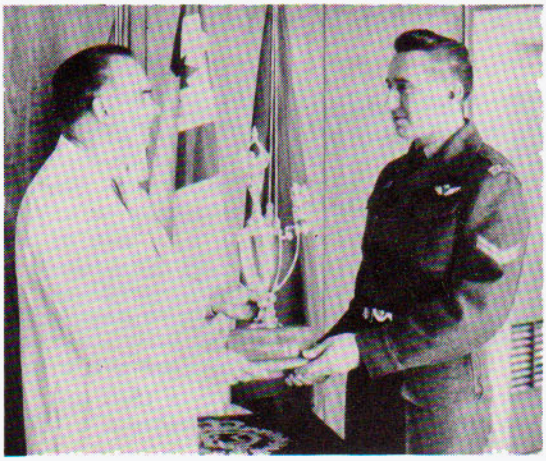
On 23 Nov 68 a combined Get Acquainted and Christmas Party was held in the Ft Chambly SGTs' Mess for all members of the unit and their wives. This turned out to

be a complete success and an evening of many surprises when LCOL (Hot Lips) Windsor took over as lead trumpet in the orchestra and gave his musical rendition of Eidelweis.

CFDSS

Courses

CPL Donald Langford received the Chief Instructor's Trophy for standing first on the first Dental Assistant Pay Level 3 Course conducted under the new Canadian Forces Training Standards held from 7 Oct to 22 Nov 68. A visit to the Ontario Museum of Natural History was included in the course.



CPL Langford from Shilo Dental Clinic receiving the Chief Instructor's Trophy from LCOL AG Andrews.

Shaw's Dental Laboratory with 178 technicians on staff and the George Brown College of Technology in Toronto provided the staff laboratory technicians and members of the Pay Level 5 and 6 courses with an opportunity to observe civilian laboratory training techniques.

Visits

MGEN WK Carr, Commander Training Command, visited the School 4-5 Nov 68 where he inspected the training and treatment facilities.

Miss Amer of the Department of National Health and Welfare visited the School 11 Oct 68. She was particularly interested in the practice of dental public health and dental health education and was complimentary of the RCDC Preventive Dentistry Programme.

Ticonium representative, Mr Joe Bordeau delivered a short lecture to the Pay Level 5 Laboratory Technician Course.

Guest Clinicians

LCOL Sills addressed the Canadian Academy of Prosthodontics in Toronto 27 Nov 68 and the Ottawa Dental Society 20 Jan 69.

Major Marion spoke to the Toronto Academy of Dentistry on "Insight into German Orthodontics" on Nov 28, 1968.

Sports

CAPT DA Graham with PTE WO Cudmore, MWO KE Laurence and CPL RW Danyluck on his team won the Opening Green Bonspiel and third prize in the A Event of the 15th Annual Yuletide Bonspiel at CFB Borden.

1 Dent Unit

Special Events

Major Bourget receiving his diploma on completion of a seven-week fixed partial denture course at US Naval Dental School in Bethesda, Maryland.

On 18 Nov 68, dental officers in the Ottawa Area attended an all day Ottawa and Eastern Ontario Dental Association clinic at NDMC with LCOL PD Crowe of the US Army Dental Corps, as guest clinician dealing with the subject of Prosthodontic Restorative Dentistry.

1 Dent Eqpt Dep

LT RD Townshend joined the depot staff as Warehouse Officer on 21 Oct 68.

SGT MJ Hall was presented his CD by Major Griffiths in November 1968 and promoted SGT 1 Jan 1969.

Professional Training

University of Michigan, Ann Arbor, Michigan, USA
CAPT NS Misura - Endodontics - 2-13 Dec 68

US Naval Dental School - Bethesda, Maryland, USA
LCOL JM Smith - Oral Pathology - 13-17 Jan 69
CAPT VJ Lanctis - Oral Surgery - 6-10 Jan 69
CAPT HM Amos - Oral Surgery - 6 Jan-21 Feb 69

ENT Air Force Base - Colorado Springs, Colorado, USA
CAPT JD McCallum - Oral Surgery - 20-31 Jan 69

Canadian Forces Medical Training Centre - Camp Borden

Medical and Dental Officers NBCW Course - 29 Jan-14 Feb 69
MAJ IAC MacDonald; CAPT JEG Joubert

Training

Canadian Forces School of Physical and Educational Recreation - Camp Borden
Badminton Coaches Course - 26 Feb-5 Mar 69 - CAPT KH Rosengart

Combined Air Operations School - CFB Rivers
Basic Parachutist Course - 17 Feb-14 Mar 69 - CAPT JL McNeill;

Canadian Forces Dental Service School, CFB Borden

Dental Therapist Pay Level 7 - 6 Jan-27 Jun 69
SGTs Arsenault JB, Lambert JP, Veinot RD

Dental Therapist Pay Level 8 - 20 Jan-15 May 69
MWO Therrien JCA; WO Barrett LR

Dental Laboratory Technician Pay Level 4 - 3 Feb 69
CPLs Alkenbrack AM, Boulanger JFGP, Bowser GG, Butson JF, Daniels MM (AF)(W), Hildebrandt GG, Lapointe MTV (AF)(W), Likins JA, Riel GJA; PTE Cudmore WG

No 1 Dental Equipment Depot - CFB Petawawa

Conversion to Dental Equipment Maintenance Technician - 6 Jan-28 Mar 69
WO MacPhee JG; SGTs Dumas PJ, Hall MJ, McKinnon HJ, McRoberts DT, Wadden GM; CPLs McKay DH, Nadeau LJP

Canadian Forces School of Mechanical Engineering - CFB Chilliwack

Sr NCO Course - 8 Jan-4 Feb 69
CPLs Ayerst HE, Bosch P, Braslins IA, Buxton WD, Cormie JD, Danyluck RW, Hatcher LR, James RK, Peck AH, Todd RE

Sr NCO Course - 12 Feb-11 Mar 69
CPLs Allen ML, Audet JAN, Gapmann HKK, Hope NJF, Kukurudziak TR, Porteous GW, Proud IG, Thorburn JH, Tweed WE

Training with Industry

Ritter Equipment Company, Rochester, NY

Installation, Maintenance and Repair
13-17 Jan 69 - WO Duve EA

JF Jelenko and Co Inc, New Rochelle, NY

Ceramco Porcelain to Gold Fabrication
20-24 Jan 69 - MWO Laurence KE

Welcome to the Corps

A cordial welcome is extended to the following personnel who have recently joined the Corps:

SGT(AF) Smith CW; CPL (AF)(W) Breadner BF, CPL Charlebois JF, CPL (AF)(W) Grandchamp MC, CPL (AF)(W) Gruener I, CPL Kilgrain BC, CPL (AF)(W) Nowlan SJ; PTE Kurbis DP, PTE (N)(W) Latimer HVP; Mrs R Dyrland, Mrs S Burrows, Mrs EJ Powell

Promotions

To WO - Beauvis M, Bleakney JC, Clarke JA, Duve EA, Fraser DE, Peverill LG
To SGT - Atherton JA, Hall MJ, Hollins DJ (AF)(W)
To CPL - Allen DG, Clarke RM, Eden DM, Morphett DJ; Audet MFE (AF)(W)

Retirements and Releases

LCOL FD Charman; MWO Sherry JM; WO Egan PAA; SGT McDow CE; CPL Hewitt DG, CPL (AF)(W) Girdlestone EI (Nee Price); PTE (AF)(W) Ames CA; Mrs D Hynes; Miss GA Haggie; Mrs J Bisson, Mrs AC Mamen; Miss Y Beattie

Vital Statistics

Marriages

Captain DL Brown to Miss Barbara Lynn Bessie; 2LT WA MacInnis to Miss Robin Mary Stedman; CPL Girdlestone TV to CPL (AF)(W) Price EI, CPL Hurding WA to Miss Anick Brassard; PTE (AF)(W) Bondy CA to PTE (AF)(W) Ames CA, PTE Forsythe CH to Miss Lise Norma Filiatreault; CAPT RM Depledge to Miss Marlene Ann O'Connor

Births

Daughter - Captain & Mrs TJ Erskine, Captain & Mrs V Rausch, Captain & Mrs HW Wilford; WO & Mrs PD Peterson; CPL & Mrs JF Butson, CPL & Mrs JRY Gratton, CPL & Mrs WH Renwick; Captain & Mrs OG Lepage

Son - Captain & Mrs WD Fiolek; WO & Mrs CR White; CPL & Mrs B Hannah

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Recommended Reading

For Therapists Pay Level 6 and 7 - Cement Bases and Silicates

a. Restorative Dental Materials - Peyton
b. Operative Dentistry - Schultz
c. Clinical Operative Dentistry - Simon