SIMPLE MODIFICATIONS PROVIDE AN IMPROVED ENDODONTIC CABINET. (U)

JUN 77 C E DEL RIO, O E PAGUETTE, R O SEGALL

UNCLASSIFIED
**Abstract**

The authors have found that some simple modifications to a commonly available dental cabinet can produce significant dividends in improved efficiency and convenience in the practice of endodontics. The approach is recommended both to endodontists and to those busy generalists who may wish to include endodontics in their everyday practices but who may find the special and necessarily meticulous preoperative preparations unduly burdensome.
SIMPLE MODIFICATIONS PROVIDE AN IMPROVED ENDODONTIC CABINET

CARLOS E. del RIO, B.S., D.D.S.
OMER E. PAQUETTE, A.B., D.D.S.
RONALD O. SEGALL, D.M.D., M.S.

COL, DC  Chief, Division of Clinical Research; Director, Endodontic Residency, US Army Institute of Dental Research, Walter Reed Army Medical Center, Washington, DC 20012

LTC, DC  Division of Clinical Research, US Army Institute of Dental Research, Walter Reed Army Medical Center, Washington, DC 20012

MAJ, DC  Endodontic Resident, US Army Institute of Dental Research, Walter Reed Army Medical Center, Washington, DC 20012

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited
SIMPLE MODIFICATIONS PROVIDE AN IMPROVED ENDODONTIC CABINET

INTRODUCTION

Service dental facilities have particular need for mobile and compact, yet complete and conveniently arranged specialty treatment systems for the clinical support of both specialist and generalist. Military dentists ordinarily operate in separate work areas using individual issues of supplies and equipment. Nevertheless, space limitations and the stringent dictates of supply economy often require that the less frequently used, but important and sometimes expensive specialty items be provided as needed instead of being routinely stocked at each operatory.

While many mobile specialty carts have served the purpose efficiently and at reasonable cost, many others have been indifferently equipped or organized, seriously curtailing clinical usefulness and needlessly shortchanging a valuable approach to a pressing problem.

The US Army Institute of Dental Research (USAIDR) in conjunction with its residency program in endodontics, has devised a mobile, chairside endodontic delivery system that meets the requirements of both endodontic specialists and students, and whose design can serve as a useful guide to anyone who may wish to enhance and simplify his approach to comprehensive dentistry by adopting or adapting an already proven scheme.
CABINET MODIFICATIONS

An "Alabama" cabinet, Model AMC II, with several uncomplicated modifications serves as the basis for USAIDR's approach. See illustrations. The cabinet as supplied has a deep top well with a built-in electrical outlet, and is covered by a freely moving cover that doubles as a convenient work surface for both doctor and assistant. There are six drawers. The top four are relatively shallow, with each of the two bottom drawers about twice the depth of a top one. The cabinet rolls easily on large casters and is equipped with a small, exterior waste receptacle and an arm rest for the doctor.

Modifications to the cabinet include replacement of the third and fourth shallow drawers with a single deep one; this is a simple exchange with no need for special adjustments. The front panel of the top well is cut in two across the front and rejoined using a nickel plated, piano type hinge so that the top portion can be turned down for improved access at chairside. The cut is so located that the front flap in the lowered, open position cannot interfere with use of the top drawer. A cut about 3mm above the level of the top well insert (whose face is about 9cm above the floor of the well) works best. The front flap is secured in the upright, closed position by a spring loaded, miniature cabinet latch with its strike plate attached to the inside of the left hand side panel. Function of the top

*Health Science Products, Inc., P.O. Box 31053, Birmingham, Alabama 35222.
lock when present is not affected, and the closed flap is secure enough that one can grasp it with confidence in positioning the cabinet.

One may wish to attach a carefully fitted strip of "Teflon" with fine brads to the underside of the top cover in such a way as to bear lightly upon one of the supporting rails (one side only is sufficient), dampening free movement of the cover sufficiently to prevent it from drifting out of position during use.

ORGANIZATION OF CONTENTS

The cabinet's sliding cover carries the operative pack in current use and other essentials. Specially arranged metal and plastic inserts conveniently and securely organize the contents of the top well and the first drawer.

The top well displays routine operating supplies arranged for maximum accessibility with due attention to proper cleanliness. Medicaments, irrigants, broaches, reamers, files, instrument stops, absorbent paper points, cotton rolls and pellets, root canal cement, temporary stopping, "Cavit", gauze sponges, burs, and an air cooled hot salt sterilizer are conveniently accommodated with the help of a large, removable, sheet stainless steel insert. With the front flap turned down, all materials are conveniently accessible at chairside.

The sterilizer is centered in front so that neither doctor nor assistant need reach repeatedly over a disinfected field to do routine resterilization.
The solid Lucite bur block is constructed to face forward at about 20° from the horizontal so that succeeding rows of burs are displayed in ascending tiers. Burs so positioned tend to gravitate neatly to the front of each recess, making for a more orderly and accessible arrangement. The medicament dropper bottles behind the bur block are displayed in similarly accessible tiers.

Irrigating solutions are stored in 250ml squeeze bottles whose curved spouts are poised over interchangeable, individually sterilized 20 ml beakers which serve as reservoirs for filling the irrigating syringes and also catch messy drippage.

Packs of pre-sterilized, absorbent paper points are displayed in five milled recesses in another Lucite block. Immediately behind this is provision for bottles of zinc phosphate cement and temporary stopping. Between the paper points and the squeeze bottles is a recess for a half ounce jar of root canal cement.

At the left rear are three stainless steel, covered jars storing cotton rolls and pellets, and gauze sponges or anesthetic carpules, as desired.

The large covered stainless steel sterilizer tray at the right front contains an autoclavable aluminum insert which conveniently organizes broaches, reamers, files, and instrument stops. The insert is mounted high enough that the blades of all instruments hang freely in the tray, lessening the likelihood of damage to delicate points. Only unused and previously sterilized instruments are stored here, under cover when not in use.
The Lucite tray in the first drawer holds sheet rubber dam and the rubber dam punch, and has twenty-four milled recesses to accommodate rubber dam clamps, gutta percha and silver points.

In the second drawer are examination packs, anesthetic syringes and needles, postoperative packs, and silver point forceps.

The deep third and fourth drawers carry instrument packs for use in routine endodontic setups, routine and special root canal fillings, apexification, incision and drainage, apical surgery, and apical amalgams.

The deep bottom drawer holds additional files and reamers, extra burs, an electric pulp tester, irrigating syringes, the micro contra-angle, and miscellaneous storage.

SUMMARY

The authors have found that some simple modifications to a commonly available dental cabinet can produce significant dividends in improved efficiency and convenience in the practice of endodontics. The approach is recommended both to endodontists and to those busy generalists who may wish to include endodontics in their everyday practices but who may find the special and necessarily meticulous preoperative preparations unduly burdensome.
REQUESTS FOR REPRINTS:

Doctor Omer E. Paquette  
Division of Clinical Research  
US Army Institute of Dental Research  
Walter Reed Army Medical Center  
Washington, DC 20012

The authors acknowledge with thanks the assistance of Mr. T. Yates,  
Walter Reed Army Institute of Research, Instrumentation Division,  
who constructed the trays and inserts.
CAPTIONS

Figure 1. The modified cabinet; drawers, cover and front flap closed.

Figure 2. The modified cabinet with cover and front flap open for use and contents of top drawer displayed.