

Method for Instructing Medical Technicians

MAJOR DONALD E. CASAD

Medical Corps, United States Army

MAJOR THOMAS A. BRODERICK

Medical Corps, Army of the United States
and

CAPTAIN HARRY T. HAVER

Medical Corps, Army of the United States

Instruction in this school¹ has been in accordance with accepted Army standards with emphasis on demonstration and student application. However, with the increasing number of students sent to the school, and with the limited time available for instruction, the need was felt for a method of teaching that would more closely reach the individual student, thus assuring that he understands and is able to carry out correctly any designated procedure. Interviews have disclosed that the Medical Department is often hampered by enlisted men who prefer training in other arms or services. There is often a marked lack of interest. Furthermore, the educational qualifications of the students sent to our school have ranged from those of a fourth grader to college graduates. Intelligence as contrasted with education, however, has usually been good. The need for individual teaching is obvious. A new organization of instruction rather than a new method of teaching is presented.

Various sections of the room were cubicled by the use of overhead wire, sheets with grommets, and a number of hooks. This procedure required about a day's work and very little expense. Cubicles of various sizes and shapes can be speedily assembled and the room divided into numerous small rooms.

The number of students each month has varied from fifty-five to seventy-five. Seventy-two has proved ideal for our floor plan and method of division, thirty-six students comprising the morning class and thirty-six the afternoon class. We decided to divide each class into six groups and the work for the week into six units, each group working in a unit on a particular day. In six days, by a system of rotation, any group has worked in all six units.

1. Medical Section of the Medical Department Enlisted Technicians' School, Letterman General Hospital.

The course of instruction during the first three weeks consists of lectures, conferences, demonstrations, and periods of student application. The subjects included are anatomy and physiology, hygiene and sanitation, emergency medical aid, nursing, and ward management. With the beginning of the fourth week, the unit system comes into effect, and the room, by means of cubicles, is speedily converted into a Model Dispensary, figure 1. At the beginning of the fifth week the room is converted into a Model Ward with equal dispatch, figure 2.

The Model Dispensary Week has been included since it has been found that many of the graduates have been assigned this type of duty. Furthermore, after completing this week students work more efficiently during the Model Ward Week, and the latter in some of its aspects is in the nature of a practical examining of the former. For example, students during the Model Ward Week when asked to prepare a hypodermic or an enema tray are expected to do so on their initiative.

MODEL DISPENSARY WEEK

The following subject matter is covered in the six units during the Model Dispensary Week:

Unit 1—Emergency Medical Aid Section: Equipment consists of two Medical Department Field Chests (Nos. 1 and 2), litters, improvised splints, and teaching plasma units.

Students carry out on each other the various emergency procedures on types of cases encountered in a forward field installation (i.e., battalion aid station). Each student is given an opportunity to set up a plasma unit and administer the solution to a model plaster arm. The treatment of shock is stressed.

Unit 2—Instrument Identification Section; Foot and Ankle Section: In the Instrument Identification Section, students spend two hours, under personal supervision, learning the names, purposes, and methods of handling various ordinary instruments and suture material. They also must set up some of the commonly used instrument trays. In the Foot and Ankle Section students examine each other's feet. Prevention and care of common foot ailments and ankle injuries are stressed.

Unit 3—Gauze Folding and Equipment Section: Students fold gauze of various sizes; make sponges and applicators; sharpen knives, scissors, and needles; repair rubber gloves; etc.

Unit 4—Solution Preparation and Cleaning Section: During the first hour and a half students prepare, under close supervision, various commonly used solutions such as normal saline, boric acid, and disinfectants for routine ward use. Household measurements are stressed.

During the second hour and a half students clean different types of equipment, such as needles, syringes, rubber goods, and glassware. They also prepare such equipment for subsequent sterilization.

Unit 5—Sterilization Section: Students are given the opportunity to sterilize all types of equipment. Preferred and alternate methods are used to impress upon the student the necessity for adaptation under adverse conditions. Each student at this time also prepares and administers a hypodermic of normal saline.

Unit 6—Gas Warfare Treatment Section: Students act in turn as patients and aid men. They give each other emergency and early treatment for exposure to common chemical agents such as phosgene, mustard, and lewisite. The treatment of phosphorous burns is also included. They are instructed and given an opportunity to pass the nasal catheter. During most of the period the students wear their gas masks.

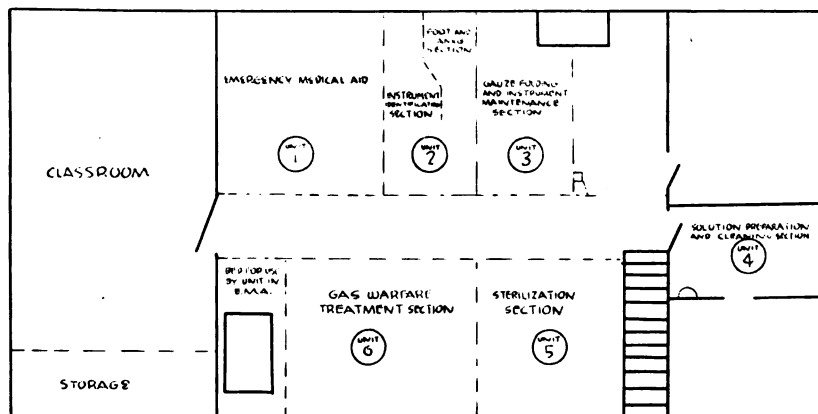


FIGURE 1. General floor plan showing position of cubicles for Model Dispensary Week.

MODEL WARD WEEK

By quickly shifting the cubicles from the arrangement used in the Model Dispensary Week, the room is converted into a small nine-bed hospital (see figure 2). Students act in turn as patients and attendants, and

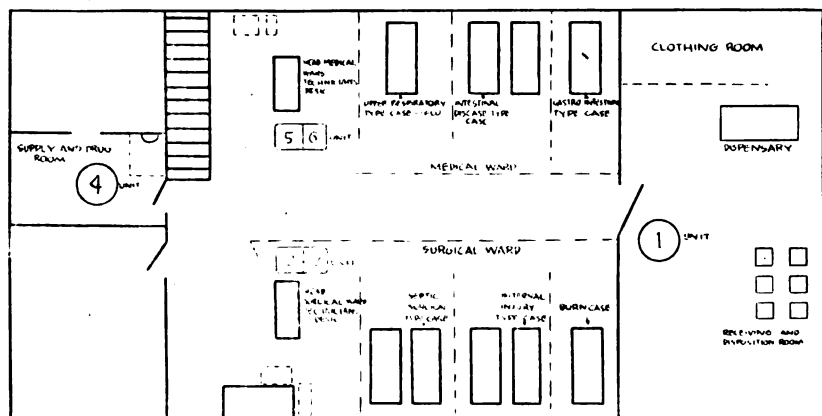


FIGURE 2. General floor plan showing position of cubicles for Model Ward Week (1st, 3d, and 5th days).

obtain an over-all picture of an Army hospital on a small scale. They carry out the various nursing procedures on each other and become familiar with commonly used paper work as it relates to patients and to ward supply.

The following is a description of the various units that comprise the Model Ward Week. (Figure 2)

Unit 1—Receiving and Disposition Office: Students act in turn as Receiving Clerk and patients, for a two-hour period. They fill out the necessary paper work relative to admitting a patient to the hospital.

Students work an additional hour in the Dispensary Room wherein a Model Sick Call is conducted.

Units 2 and 3—Surgical Ward: Three typical surgical cases are presented on the first, third, and fifth days; four different cases on the second, fourth, and sixth days. (See figure 2.) One student each day is designated a head ward technician, his work being comparable to the duties of a head nurse. He is responsible for the discipline, cleanliness, and smooth functioning of the ward. The other students act in turn as patients, attendants, and wardmasters.

Unit 4—Supply Section: Students take a physical inventory of the property in the Supply Room; they submit an Overage and Shortage Report; they are given a list of expendable and non-expendable property to requisition, using the Medical Department Supply Catalog. They are given other work to do relating to ward supply problems.

Units 5 and 6—Medical Ward: Three typical medical cases are presented on the first, third, and fifth days; three different cases on the second, fourth, and sixth days. (See figure 2.) The procedure followed in this ward is similar to that of the Surgical Ward. The use of cubicles on the Medical Ward is naturally of great value in teaching proper handling of infectious diseases.

SUMMARY

1. A new organization for instructing medical technicians has been presented, having as its basis the use of cubicles and the rotation of students, procedures, and cases. This allows the individual student to become thoroughly familiar with each procedure and case.

2. It is a method that involves very little expense and space. It is highly flexible, and no additional teaching personnel has been required.

3. The use of cubicles allows the maintenance of the class as a whole and yet at the same time its conversion into smaller units. An enlisted instructor is in charge of one or two such units. A medical officer instructor can pass freely from one unit to the other, thus assuring orderly functioning of all units.

4. Accepted mechanisms and methods of training are utilized to a high degree; namely, small groups, coach-and-pupil, application and demonstration at a maximum, practical examination, close contact between the instructor and the individual student.