

GENERAL RULES OF OPERATING ROOM PROCEDURE

A. Aims and Ideals of the Operating Room

It shall be the aim of this operating room to function at all times in such a manner as to provide with speed and safety the best possible surgical care for the patients treated. It is expressly stated at this point that the term "this operating room" refers more to the medical officers, nurses, and enlisted personnel than it does to the physical equipment of the department. It is to be expected that with the changing conditions of war and with the changing outlook and knowledge of wartime surgery as understood by the medical officers, that the rules of operating room procedure as well as the actual equipment will change as necessity requires. However, in the interest of a high standard of surgical care, a certain uniformity of conduct is necessary for the care of the largest number of patients possible, for the greater efficiency of the entire operating room personnel and medical officers, and for the economical operation of the department.

B. Personnel

The personnel of the operating room consists of the medical officers working therein, the nurses assigned specifically to duty in surgery, and the enlisted men trained especially for their technical duties of the operating room. The training of the enlisted men, and their direction for efficient work, is the responsibility of the nurses together with the medical officer in charge of surgery and the operating room proper.

C. Equipment

The equipment of the operating room consists of the rooms themselves, operating tables, instrument tables, portable lights, sterilizing equipment, surgical supplies, drugs, instruments, linen, and any other property housed in, assigned to, and used by the operating room.

The procurement, safe keeping, and adequate supply of operating room equipment is the direct responsibility of the medical officer in charge, and an accurate check list of non-expendable property will be kept up to date by him.

The equipment for anesthesia, and the personnel working in anesthesia, are a part of and under the direction of the operating room.

1. Care of the equipment.

The nurses in surgery are responsible for the routine administration of the operating suite and all the various functions therein, but because of their limited number, the major portion of the work entailed will be done by the enlisted men under their direction. Time not spent in assisting during operations will be spent in the preparation and care of the operating room equipment. The following is a sample list of duties to be performed by the enlisted personnel, other than assisting at operations:

- a. Linen room: count soiled linen 7:30 A.M.
 - shelves washed once a week
 - linen check as returned from laundry and kept in proper order on shelves.
 - sweep, dust, and polish metalware daily
 - scrub floor and windows once a week

- b. Sterile supplies: wrap supplies as soon as wrappers are emptied.
make packs, keep standard amount sterilized.
check supply cupboard daily and keep completely stocked.
wash shelves weekly
keep older supplies in front and new in back;
resterilize all supplies once a week
- c. Sterilizing room: sterilize supplies as soon as loads are ready
clean cupboard weekly
wash instrument after use, ordinarily each evening
Keep drains and sinks clean and polished
do not attempt to use apparatus until thoroughly instructed.
- d. Instructions: An accurate count must be kept at all times. If possible instruments for the various surgical services will be put in cabinets especially designated.
Instruments are washed in soap and water, dried, and when necessary are oiled, before being put away, no matter what time the day or night.
Instrument cabinets are straightened daily, and the check list of instruments is made accurate once every 24 hours.
If there is a separate instrument room it is to be dusted and scrubbed daily.
- e. Orthopedic room: Adequate plaster will be kept rolled, and the cart will be kept ready for immediate use at any time.
The cupboards will be kept in order daily, and the room shall be dusted and scrubbed daily.
- f. Cystoscopy room: The cabinets are scrubbed out weekly, and all contained equipment put in order daily, the room shall be dusted and scrubbed daily.
- g. Wash rooms: Scrub-up rooms, toilets, sinks, fountains, and other such equipment is scrubbed with soap and water daily, and oftener, if heavy use requires it.
- h. Operating rooms proper:
All portable lights, overhead lights, tables, cabinets, window sills, etc., shall be dusted daily, and no later than 7 A.M.
A check list shall be kept for the contents of each room in the operating suite.
All instruments and other permanent equipment will be cleansed after each operation without delay.
Soiled instruments and linen must not be left lying about in an operating room.
The floor of each operating room, as well as the main corridor of the suite, must be scrubbed with soap and water daily, and the rooms shall be scrubbed between cases where that is necessary and practicable.
Walls, windows, cabinets, stools, etc., must be scrubbed once a week.
The aim shall be at all time to keep equipment picked up, clean, in order, and in its place.

- i. Doctors' room: Fresh operating room suits are kept in the proper place and in adequate quantity.
A rack shall be provided for doctor's shoes, and they must be labeled and put on the rack, not on the floor. Caps and masks shall be so placed that they will stay clean and not become scattered or lost.
Soiled towels and operating room clothing must be picked up and checked out to the laundry without delay.
- j. Scrub rooms: For both nurses and doctors, are to be kept stocked with soap, brushes, and clean towels at all times.
Faucets to be checked frequently for water temperature.
Floor must be kept free of soapy water.
- k. Rubber goods, glassware, metalware: These are to be washed, wrapped, sterilized, and stored under the direction of the nurse in charge.
- l. Linen: Packs of linens, folded sheets and drapes, towels, and other linen supplies are to be prepared under the supervision of the nurse in charge.
- m. Dressings: These will be made up from the bulk materials. Pads, sponges, fluffs, and all other types of dressings will be prepared in the work room of the operating suite, packaged, sterilized, and stored with sufficient reserve quantities.
- n. According to the location of the hospital, the type of surgery being done, the availability of supplies of all kinds, the number of nurses and enlisted men allotted to the operating suite, and various other factors will affect the actual duties of the enlisted men in their care of equipment. Such duties will be made clear at the proper time.

2. Care of anesthesia equipment

The chief surgical nurse shall be primarily responsible for all such equipment, but its actual care will be administered by the anesthetists themselves. Anesthesia machines, gas tanks, ether stores, and the supply for the anesthetist's table shall be kept properly recorded and stocked by the anesthetists. The anesthetists' tables should each be supplied with a mouth gag, tongue forceps, gauze bandage, adhesive tape, emesis basin, blood pressure apparatus, stethoscope, anesthesia charts, safety pins, a luminous dial watch, bandage scissors, several towels, two ether masks, aromatic spirits of amonia, flashlight, and airways.

3. Storage room

Space will be provided for the storage of excess bulk supplies of all kinds, stretchers, furniture, suction machines, bone motors, electrocautery apparatus, sponge racks, irrigating and intravenous fluid stands, anesthesia machines, and other heavy equipment which cannot be left standing in the operating rooms or corridors.

4. Hand-made supplies

- a. Sheets and drapes are specially tailored by hand according to desired size and shape.
- b. Arm pads, abdominal pads, and perineal pads, laparotomy pads.
- c. Gauze sponges: 4 x 4, 2 x 2, $\frac{1}{2}$ x $1\frac{1}{4}$, cotton balls, applicators, cotton wipes (for eye), pressed cotton (prepared from the bolt),.
- d. Slings, binders, T-bandages.
- e. 5 yard - 4 ply gauze head roller bandage.
- f. Sea sponges, cut to various sizes.

- g. Various splints, usually of small size.
- h. Suture material (cut and packaged by nurses)
- i. Various rubber necessities, as drains, packs, dams, etc.
- j. Tapes, wrappers, cable covers, basin containers, etc.

D. Maintenance of Supplies

It is the responsibility of the chief nurse in surgery to see that all supplies, be they linens, dressings, suture material, instruments, lamps, drugs, hardware, glassware, rubberware, etc., be kept stocked in adequate amounts. The preparation of such supplies as dressings, etc. is done, wherever possible, by the enlisted men. Check lists of all supplies, and for the contents of each operating room, are kept up to date and available for inspection at any time, by the chief nurse in surgery.

The chief surgical nurse shall determine the nature of the routine surgical supplies, their quantity, their actual make-up, etc. Special supplies will be made only when the requesting medical officer presents valid reason for his request, and after such a request has been approved by the medical officer in charge of the operating rooms.

The policing of the suite by the enlisted men, the necessary repairs of all equipment, and the assignment to special duties in the operating room by both enlisted personnel and nurses is to be directed by the chief surgical nurse who, in turn, acts under the direction of the chief medical officer in surgery. In this regard, the operating room and its equipment is managed according to instructions given in Technical Manual 8-260.

E. Instruments

Instruments and special operating room equipment are had in as full a number as allowable by the government. They are grouped, so far as possible according to type of surgery, but it is impossible to definitely assign any one instrument of piece of equipment to one definite surgical service to the entire exclusion of any other.

The instruments are checked daily for their full complement and state of repair. Each cabinet shall contain only its specified list of instruments. After each use the instruments are scrubbed with soap and water, dried, and oiled when that is necessary. After septic cases, they are boiled for 20 minutes after being scrubbed with soap and water, and no instrument used on a septic case must ever be put back into its cabinet without this boiling having first been done. Bon Ami may be used, but sparingly, and sharp instruments are kept properly cased and wrapped.

Privately owned instruments, brought into the operating rooms at the will and desire of their owners, the medical officers, are definitely not the responsibility of the personnel of the operating suite. While such instruments will be given every care and consideration, and will be housed, separately from the general fund of instruments, but their loss or damage is not the responsibility of the enlisted men or nurses in the operating rooms. Such privately owned instruments should be clearly marked with the owner's initials.

F. Operating Room Records

1. Check lists are kept by the chief surgical nurse of all expendable and non-expendable supplies in the various divisions of the operating suite.
2. Records of purchases, breakages, losses, etc., as required by army regulations and the medical supply officer.
3. Schedules of working hours of nurses and enlisted men.

4. A record made and kept by the chief nurse of each and every operative procedure.
5. Operations should be scheduled on the daily schedule in the operating room at least 12 hours in advance of time of operation.
6. A bulletin board shall be in plain view of all personnel, and shall contain such information as should come to the attention of the personnel of the operating rooms.

G. Cultures

1. The floors and walls of all rooms in the operating suite, all equipment, and all bulk supply is cultured every three months by the laboratory dept.
2. Every enlisted man, nurse, and medical officer shall have a throat culture made at least every six months, and the result of such culture shall be kept by the laboratory department. This will be done oftener when such action is indicated.
3. Specimens, wounds, dressings, etc. will be cultured in the operating room by laboratory personnel only upon specific request by the medical officer whose patient it is.

H. Inspection

1. The chief of the surgical service will inspect the operating suite at his own discretion. He will inspect the enlisted personnel for personal cleanliness and adaptability. He will inspect the nurses by studying their records, the state of the instrument cabinets, and the general state or orderliness, cleanliness and repair of the operating rooms.
2. Nurses or enlisted men harboring chronic disease will not be kept in the service of the operating room.
3. Enlisted men must keep their nails short, their hair trimmed, their clothing fresh and clean, and their bodies bathed at least once every day.

I. Specimens

Specimens produced in the operating rooms will be sent to the laboratory only when specifically requested by the operating medical officer, and then only when the proper request form is filled out to accompany the specimen. Large specimens, such as amputated extremities, and the bodies of patients expiring in the operating room will be sent to the laboratory department for proper disposal.

J. Operating Room Department

1. All unnecessary noise, loud talking, whistling, singing, and banging of equipment has no place in an operating room.
2. No cooking other than the making of coffee will be allowed in the operating room.
3. Enlisted personnel and nurses must arrive on duty on time. This is a matter which will be closely watched and a rule which will be enforced. There will be many times when everyone concerned will have to work long hours and much over usual time, and this can be compensated for only when the volume of incoming work so permits. Utmost loyalty to the welfare of the patients and the smooth functioning of the operating room is expected from every enlisted man, nurse, and medical officer. All surgical personnel are urged to keep in as good a state of physical health as possible, for the greater efficiency of the surgical department of the hospital.

4. Enlisted men may smoke ONLY in the latrine. Nurses and medical officers may smoke ONLY in their latrines or dressing rooms, and no one may smoke in the operating suite if special occasion demands that rule.
5. Unnecessary waste from every angle is discouraged. Operating surgeons are urged to be economical of drapes, suture material, needles, gauze, etc. Soap, brushes, linen, electricity, etc., all should be conserved where possible.
6. The proper decorum of the nurses and enlisted men is entrusted to chief surgical nurse and the medical officer in charge of the operating rooms.

K. Pre-operative Preparation

Much of the pre-operative preparation of the patient is done after a routine plan, under the direction of the ward surgeon, on the ward. Diets, fluids, pre-operative transfusions, etc., are no concern of the operating room.

The pre-operative medication, anesthesia to be used, time of enema, and other matters having a direct bearing on the administration of an anesthetic must be made known to the operating room, and especially to the anesthetists. Rules covering these matters in their relation to anesthesia will be found in this manual on the section dealing with anesthesia.

Operating room orderlies go to the ward for certain pre-operative procedures. They shave the operative site, prepare sterile scrubs, and otherwise aid in the preparation of the field of operation. All such preparations should be done, whenever possible, on the ward. There will be times and patients requiring such measures to be carried out in the surgical suite, and depending upon the volume of such work to be done, a room for such preps to be done immediately before operation shall be equipped in the operating suite.

Orderlies shall be thoroughly instructed in the technique of shaving and cleaning around an open wound, of scrubbing and wrapping a part for a sterile prep and in the application of temporary dressings pre-operatively.

No patient, ambulatory or otherwise, makes the trip from his ward to surgery unaccompanied by an attendant. Care is taken that litter patients are kept comfortable and warm in transit from ward to surgery, that the move is made quickly and efficiently, and that the patient and whatever attached appliances there may be are disturbed as little as possible.

L. Post-operative Care

Following surgery, the patient is returned to his bed quickly, the same precautions being observed as during his transit from ward to surgery. Whenever possible, the anesthetist should accompany the patient back to bed.

The anesthetist shall instruct the ward nurse in the hourly administration of oxygen with a Boothby mask to all patients having had an encephalogram or ventriculogram.

Operating room attendants will exert reasonable interest to see to it that fluids running in surgery during the operation are still running after the patient is put back into bed, but they will not be required to start, adjust, or otherwise manipulate any such apparatus once the patient is in bed.

M. X-Ray Equipment

Whatever x-ray equipment is used and housed in the surgical suite will be the responsibility of the x-ray department, and the surgical attendants will be expected to be responsible only to a degree necessary for the efficient functioning of the equipment. It will not be carried on the surgical checklist.

N. Duties: Technique

- A. **Enlisted Men:** The care, preparation, and maintenance of all operating room equipment and supplies constitutes one major group of duties for the enlisted personnel. The other primary function of this group is to act as the unsterile, circulating assistant during operations. Both functions shall be assigned to the individual man by the chief surgical nurse. The training of these men is the responsibility of the nurses and medical officers working in surgery. Their technique, personal cleanliness, and general ability will reflect the efficiency of such teaching. Loyalty and alertness must be an attribute of every man if he is to be entrusted with certain important functions.
- B. **Nurses:** On the nurses will fall the burden of the teaching to be done to the enlisted personnel. They must oversee all functions of the operating room and perform personally such matters as suture preparation, pack assembly, etc., until such time as they are assured that the enlisted men assigned to those duties are entirely instructed. The number of nurses assigned to operating room duty is necessarily limited, and therefore but one nurse will ordinarily scrub for a single operation, and will perform her sterile duties with the aid of one or more unsterile circulating male orderlies. The duties of the nurse anesthetists will be found in the section of this manual dealing with anesthesia.
- C. **Medical Officers:** The final sterile scrub of the patient, the operation itself, and the application of the dressing will be done by the operating surgeon or his officer-assistant. Large volume of surgery may alter this plan from time to time. Cooperation on the part of the officers is asked in those circumstances when the facilities of the operating rooms are taxed. Tables, rooms, scrub nurses, certain equipment, etc. will be more or less definitely assigned but by no means will such an arrangement be held rigid. Constructive criticism is welcomed by the medical officer in charge of surgery and by the chief surgical nurse.
- D. **Scrub technique:**
1. Nurses and doctors must wear caps, and in the case of the nurses, all the hair should be included in the cap.
 2. Masks will be adequately large to cover both mouth and nose.
 3. The gown of the nurses, and the coat and trousers of the surgeons, worn during the operation will be used only for the operating room. Special operating room shoes must be worn and kept in the operating room, and no part of the regular daily uniform is to be worn in the operating room.
 4. Sterile brushes, soap, and water are provided for the scrubbing of hands. Hands will be scrubbed for 10 minutes by the clock. Scrubbing is done above elbows.
 5. Following the scrub, the hands and arms are immersed in 80% alcohol, supplied in a basin.

6. The operating surgeons and nurses may dry the hands before putting on the gown, or afterward, according to their own preference.

7. Dry glove technique is used in this operating room. A minimal amount of powder is necessary if the hands are properly dried, and excessive amounts of powder are discouraged because of the clouds of dust produced and the soiling of the floor.

E. Visitors:

Visitors are not discouraged in the operating room, but they are admitted only on the knowledge and agreement of the chief nurse and the operating surgeon. They must be completely gowned in clean (not sterile) gowns, and fully capped and masked.