

Staff Meeting Bulletin
Hospitals of the » » »
University of Minnesota



**EXPERIENCES WITH
CHEST WOUNDS**

STAFF MEETING BULLETIN
HOSPITALS OF THE . . .
UNIVERSITY OF MINNESOTA

Volume XVII

Friday, January 25, 1946

Number 11

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William A. O'Brien, M.D.

I.

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

CALENDAR OF EVENTS

Jan. 26 - Feb. 1, 1946

Medical Visitors Welcome

No. 99Saturday, Jan. 26

- 9:00 - 9:50 Pediatrics Grand Rounds; I. McQuarrie and Staff; W-205 U. H.
- 9:15 - 10:20 Surgery-Roentgenology Conference; O. H. Wangensteen, L. G. Rigler, and Staff; Todd Amphitheater, U. H.
- 9:00 - 9:50 Medicine Case Presentation; C. J. Watson and Staff; M-515 U. H.
- 10:00 - 11:50 Medicine Ward Rounds; C. J. Watson and Staff; E-221 U. H.
- 11:30 - 12:20 Anatomy Seminar; The Italian Anatomists in early 19th Century; S. P. Miller; I.A. 226.

Sunday, Jan. 27

- 11:00 - 1:50 Obstetrics and Gynecology Grand Rounds; J. L. McKelvey and Staff; Station 44, U. H.

Monday, Jan. 28

- 9:00 - 9:50 Roentgenology-Medicine Conference; L. G. Rigler, C. J. Watson and Staff; Todd Amphitheater, U. H.
- 9:00 - 10:50 Obstetrics and Gynecology Conference; J. L. McKelvey and Staff; Interns Quarters, U. H.
- 12:15 - 1:15 Pediatrics Seminar; Irvine McQuarrie and Staff; 6th Floor Eustis.
- 12:15 - 1:15 Obstetrics and Gynecology Journal Club; M-435, U. H.
- 12:30 - 1:20 Pathology Seminar; Experimental Intra-Ocular Virus Infections; Dr. Charles Evans; 104 I. A.
- 12:30 - 1:20 Physiology Seminar; Human Psychomotor Function in Deficiency of the B Vitamins, Particularly Thiamin; Dr. Josef Brozek; 214 M. H.
- 4:00 - School of Public Health Seminar; Rheumatic Fever Case Load in St. Paul Family Nursing Service; Elizabeth Sutcliffe; 6th Floor Student Health Service Bldg., Women's Lounge.

Tuesday, Jan. 29

- 9:00 - 9:50 Roentgenology-Pediatrics Conference; L. G. Rigler, I. McQuarrie and Staff; Eustis Amphitheater, U. H.
- 12:30 - 1:20 Pathology Conference; Autopsies; Pathology Staff; 104 I. A.
- 3:15 - 4:15 Gynecology Chart Conference; J. L. McKelvey and Staff; Station 54, U.H.

- 4:00 - 4:50 Surgical-Physiology Conference; Hyperinsulinism; Drs. Wangensteen and Armstrong; Eustis Amphitheater.
- 4:30 - 5:20 Ophthalmology Ward Rounds; Erling Hansen and Staff; E-534, U. H.
- 5:00 - 5:50 Roentgen Diagnosis Conference; Dr. Oscar Lipschultz and Dr. Harry Mixer; M-515 U. H.

Wednesday, Jan. 30

- 8:00 - 8:50 Surgery Journal Club; O. H. Wangensteen and Staff; M-515 U. H.
- 9:00 - 10:30 Pediatrics Staff Rounds; W-205 U. H.
- 9:00 - 10:50 Neuropsychiatry Seminar; Staff; Station 60 Lounge, U. H.
- 11:00 - 11:50 Pathology-Medicine-Surgery Conference; Addison's Disease; E. T. Bell, C. J. Watson, O. H. Wangensteen and Staff; Todd Amphitheater, U. H.
- 12:30 - 1:20 Physiology Chemistry Journal Club; Staff; 116 M. H.
- 4:00 - 6:00 Medicine and Podiatrics Infectious Disease Rounds; W-205 U. H.

Thursday, Jan. 31

- 9:00 - 9:50 Medicine Case Presentation; C. J. Watson and Staff; Todd Amphitheater.
- 12:30 - 1:20 Physiological Chemistry; Cyrus P. Barnum; 116 M. H.
- 4:30 - 5:20 Ophthalmology Ward Rounds; Erling Hansen and Staff; E-534, U. H.
- 4:30 - Bacteriology Seminar; Role of Thiamin in Growth and Metabolism of Bacteria; Bill Hoyer; 214 M. H.
- 5:00 - 5:50 Roentgenology Seminar; Review of Literature; Staff; M-515 U. H.

Friday, Feb. 1

- 9:00 - 9:50 Medicine Grand Rounds; C. J. Watson and Staff; Todd Amphitheater, U.H.
- 10:00 - 11:50 Medicine Ward Rounds; C. J. Watson and Staff; E-221 U. H.
- 10:30 - 12:20 Otolaryngology Case Studies; L. R. Boies and Staff; Out-Patient Otolaryngology Department; U. H.
- 11:50 - 1:15 University of Minnesota Hospitals General Staff Meeting; Sterile Pyuria; Dr. Frank Roach; New Powell Hall Addition Amphitheater.
- 1:00 - 2:00 Dermatologic Allergy; Dr. Stepan Epstein; W-312 U. H.
- 2:00 - 3:20 Dermatology and Syphilology; Presentation of Selected Cases of the Week; H. E. Michelson and Staff; W-312 U. H.
- 1:30 - 2:20 Roentgenology-Neurosurgery Conference; H. O. Peterson, W. T. Peyton, and Staff; Todd Amphitheater, U. H.

II. EXPERIENCES WITH CHEST WOUNDS
AS SEEN AT THE 26TH U. S.
GENERAL HOSPITAL

John R. Paino

North African Experience

During its service overseas of almost three years, the 26th General Hospital actually functioned as a hospital during the period of hostilities for only 23 months. This period of service was divided between North Africa and Italy.

During the period of its service in North Africa, it was located near Constantine, Algeria, as the most forward of any of the American general

hospitals up to the end of the Tunisian campaign. Because of its forward location and the recurring need for a large number of available beds to care for the casualties resulting from the bitter fighting of the last weeks of the war in Africa, it was impossible to keep some patients for periods longer than three weeks. The same thing was true but to a lesser extent at the time of the invasion of Sicily. Even at the busiest periods, however, the hospital was not called upon to give primary surgical treatment to any battle casualties except in a few isolated instances. These circumstances have a direct bearing on the type of patient which was seen and the treatment given.

Table I

Patients with Intrathoracic Wounds
and Injuries Incurred in Combat

North African Experience

| | |
|--|----|
| 1. Non-penetrating injuries | 3 |
| 2. Penetrating injuries | 63 |
| a. Patients treated without primary surgery other than debridement and without subsequent aspiration of the pleural cavity | 15 |
| b. Patients treated without primary surgery other than debridement and with subsequent aspiration of the pleural cavity | 32 |
| c. Patients treated with primary major surgery | 16 |

Italian Experience*

| | |
|---|----|
| 1. Non-penetrating injuries | 0 |
| 2. Penetrating injuries | 23 |
| a. Patients not requiring aspiration of the pleural cavity after initial surgery | 2 |
| b. Patients requiring only aspiration of the pleural cavity after initial surgery | 8 |
| c. Patients requiring thoracotomy for coagulated hemothorax after initial surgery | 13 |

*Information now available is insufficient to furnish a direct comparison between these cases and those seen in North Africa.

A total of 66 patients with injuries involving the thoracic cavity and its contents which were incurred in combat were received and treated by the hospital during its 7 months' service in North Africa. During this same period, approximately 11,000 patients were admitted to the hospital of which about 5,000 were admitted to the surgical service.

Wounds involving the thoracic wall alone have been excluded from the report since such wounds present no special problems not found in other wounds. Neither have patients with fractured ribs unassociated with intrathoracic complications been included. Many of the 66 patients had other wounds but these wounds did not appear to affect the course of the intrathoracic injuries and are not considered here.

Cases of non-penetrating injury

The 3 patients with non-penetrating injuries were two instances of blast injury of the lung from bomb explosions and one instance of a crushed chest with bilateral fractures of the ribs and associated hemo-pneumothorax of one side due to the recoil of an artillery piece.

These patients were all treated initially at other hospitals and transferred to us during the early part of their convalescence. Treatment consisted of strapping the chest with adhesive tape and aspiration of the intrapleural accumulations of blood and air. There were no deaths in this small group. None of the 3 patients were returned to duty.

Cases of penetrating injury of the chest

Sixty-three patients were seen who had penetrating wounds of the thoracic cavity. This large group of patients from the standpoint of surgical therapy fell naturally into 3 classes as follows:

1. Patients treated without primary surgery other than debridement and without subsequent aspiration of the pleural cavity -- 15.

2. Patients treated without primary surgery other than debridement and with subsequent aspiration of the pleural cavity -- 32.
3. Patients treated with primary major surgery -- 16.

In a somewhat rough manner, this classification also divided the patients according to the severity of their injuries. The large majority of patients with penetrating wounds of the thoracic cavity had the wound of the chest wall debrided and the opening into the pleural cavity closed at a forward evacuation or field hospital. In a few instances in which the wounds were small and the resulting injury minimal, no debridement at all was done. No debridements were performed at our hospital. No wounds were of the sucking variety when seen at our hospital although many were noted on the field medical record as being such initially. Ribs were frequently noted to have been fractured by the penetrating missiles but this complication provided no special therapeutic problem in any of our cases. Bomb, mortar and shell fragments were by far the most frequent causative agents.

Thoraco-abdominal injuries

According to a strict interpretation of the term, four patients might be classified separately as having thoraco-abdominal wounds inasmuch as the diaphragm was also involved. In three of these four cases, the liver as well as the diaphragm was injured but only slightly. No other intraperitoneal injuries were present. No intra-abdominal complications ensued while the patients were under our observation.

1. Patients treated without primary surgery other than debridement and without subsequent aspiration of the pleural cavity

The 15 patients in this group had minimal amounts of air and fluid in the pleural cavity which did not require aspiration. Nine patients had retained

small metallic foreign bodies, but no operative procedures for their removal were performed. Complications developed in one instance. This soldier developed a localized empyema with a bronchial fistula which had to be closed by operation. Five patients in this group were returned to duty. No patient died.

2. Patients treated without primary surgery other than debridement and with subsequent aspiration of the pleural cavity

The 32 patients in this group all developed hemothorax and pneumothorax following their debridements which were of sufficient extent to justify one or more thoracentesis. The total quantity of fluid removed from the pleural cavities of these patients varied from 50 to 3,520 cubic centimeters. The quantities of air removed were not measured. Eight cases had retained small metallic foreign bodies but none of these were removed at our hospital. Six patients developed empyema and in 5 of these, there was an associated bronchial fistula. In only one case of empyema was there a retained metallic foreign body.

In 3 cases, a large hemothorax became clotted. Each of these patients was subjected to thoracotomy, the organizing hematoma evacuated and the lung decorticated.

None of the 32 patients died. Nine were returned to duty.

3. Patients treated with primary major surgery

The surgical procedures performed upon the 16 patients in this group included 15 thoracotomies and one laparotomy. The usual operative procedure consisted of a thorough debridement of the entire wound tract with ligation of all bleeding vessels and suture of lacerated lung tissue. Only one patient had had sufficient lung tissue excised to justify the term partial lobectomy. In the majority of cases, the thorax was closed without drainage. None of these operations were performed at our hospital. Only 2 cases developed complications. In one a severe

wound infection in the chest wall followed a thoracotomy and in one a severe intercostal neuritis developed which necessitated cutting two intercostal nerves.

No patient in this group of 16 cases died. Four were returned to duty.

Discussion

Definitive treatment had already been begun by the time the patients reached our hospital some 2 to 14 days after being wounded. By and large the general condition of the men was good considering the seriousness of their injuries. This speaks well for the large volume of work performed under trying circumstances by the evacuation hospitals. In most cases all we could do was to ensure as far as possible the continuance of a satisfactory convalescence and return to duty as many men as possible, physically fit to withstand sustained hard physical exertion.

Our efforts in the way of therapy consisted mostly of: 1) supportive measures such as blood transfusion, 2) prophylaxis or treatment of infection by the administration of sulphadiazine or sulphathiazole, and 3) the aspiration of intrapleural accumulations of blood and air.

We had been greatly impressed in 1942 by the results obtained in England by Mr. Tudor Edwards and his colleagues in the treatment of hemothorax following wounds of the chest by repeated aspiration. These men advocated repeated frequent aspirations, begun 36 to 48 hours after the occurrence of the hemorrhage and continued until no further fluid accumulated in the pleural space. Such a regimen seems justified by the facts, as demonstrated by Tudor Edwards, that early aspiration did not produce additional bleeding and that the incidence of infection was much lower in those patients in whom the pleural space was kept free of fluid by aspiration than in those treated conservatively, that is, without aspiration. An additional reason for the persistent use of aspiration is the very real danger of coagulation and

subsequent organization of an intrapleural collection of blood.

A thoracentesis was performed in each case of thoracic wound or injury in which intrapleural fluid other than a minimal amount was thought to be present either by physical or x-ray examination. Routine use was made of the efficient portable electric suction pumps provided by the Army Medical Corps. The degree of suction produced by these machines can be quickly and accurately regulated by a control screw, and experience has shown that the machines are safe when used carefully. Most of the patients were aspirated every third or fourth day as long as was required by the reaccumulation of the fluid. No arbitrary limit was set as to the quantity of fluid or air, or both that should be removed at one time. The patient's subjective complaints of tightness, pain in the chest, or the onset of coughing were taken as indications to terminate the aspiration. On no occasion, however, were more than 900 c.c. of fluid removed at one time. The usual aspirations averaged between 400 and 600 cc.

As practically all of our patients had been injured more than forty-eight hours before reaching the hospital, there seemed to be little danger of initiating fresh bleeding by the disturbance of intrathoracic pressure relationships due to thoracentesis. In only a few instances, therefore, was air injected following the aspiration and then only for the increased comfort of the patient. No instances in which aspiration produced renewed bleeding were noted.

An objection which may be raised against frequent repeated thoracentesis is the danger of producing an empyema from bacteria carried in by the thoracentesis needle or secondary to injury of the lung by the needle. It can be noted, however, that none of the 7 cases of empyema which occurred in this series followed aspiration at our hospital. All had their infection when first admitted. The 11 per cent incidence of empyema which we noted is about the incidence noted in other larger series of thoracic wounds as they occurred in this war.

Although the number of empyemas is not great, it does seem significant that in six out of seven instances there was an associated bronchial fistula while in only one instance was a retained metallic foreign body associated with development of this type of infection.

The return to duty of approximately 25 per cent of men with intrathoracic wounds or injuries within 90 days of being wounded was somewhat above the average for other hospitals in the same theater. Perhaps we were too optimistic in the matter at first for as our experience increased the number of those patients with this type of wound which returned to duty decreased. No information is available as to whether or not these men returned to duty were able to stay there.

Italian Experience

After moving to Italy the 26th General Hospital was assigned with five smaller subsidiary hospitals to care for the 15th Air Force and its supporting troops. There were approximately 16,000 combat airmen in the 15th Air Force and the supporting troops carried in number from 90,000 to 100,000. This arrangement for hospitalization remained in effect for approximately 16 months, i.e., from 15 January 1944 to the end of the war in 1945. The five field and station hospitals were located immediately adjacent to large air bases at a distance of 40 to 75 miles of Bari, Italy, which was the headquarters of the air force and the location of the 26th General Hospital. These small hospitals received all casualties as they were removed from the bombers at the return from a raid and performed all the immediate surgery required. Air evacuation to the general hospital was provided twice a week. At the general hospital where patients could be held up to 90 days, definitive treatment was begun or continued if already started at the field or station hospital.

Incidence

The only thing characteristic about the penetrating wounds of the chest as they occurred in the air force was their

rarity. In the records of the 15th Air Force, wounds of the thorax and abdomen were included together so that it was impossible to arrive at any accurate incidence of wounds of either of these regions separately as compared to injuries of other parts of the body. During 1944, however, there were 2,575 wounds reported as caused by anti-aircraft shell fragments or by bullets from enemy aircraft. One hundred thirty-two of these wounds involved either the chest, abdomen or both. Furthermore, the majority of these wounds were superficial and did not involve either the pleural or peritoneal cavities. Stoward and Ristine reported on the incidence of 394 wounds in 293 combat airmen in the 15th Air Force and found that the chest was involved in 5.3 per cent of the wounds and the abdomen in 2.5 per cent of the wounds.

The explanation of this relatively low incidence of thoracic wounds in the Air Force is that the protection afforded the airman by his body armour was great. In 1944, there were only 11 men in the 15th Air Force who were known to be killed by missiles which penetrated the "flak" suit. Ten of these were instances where shell fragments penetrated and one was where a bullet penetrated.

There are records of only 24 penetrating wounds of the chest among airmen of the 15th Air Force who lived to return to their base during 1944 and the first four months of 1945. One of these cases died in a station hospital 5 days after admission. This was a thoraco-abdominal type of wound. The remaining 23 cases were all seen at the 26th General Hospital. None of these patients died. These 24 patients comprised only .5 per cent of 4,875 men wounded during the same period.

Treatment

All of these wounds were debrided as the initial step in their surgical treatment. The extent of the debridement depended largely upon the severity of the wound. In some instances this was confined to the thoracic wall only but in those wounds caused by large pieces of shell the pleural cavity was opened freely and the lung itself was debrided. Great care

was used to remove all pieces of clothing and splintered bone. After April, 1944, penicillin was available in large quantities and was given to these cases as indicated, usually as 40,000 units instilled in the pleural cavity at the time of debridement and in the usual 20,000 unit subcutaneous injection every 3 hours for several days thereafter.

Abdominal explorations were performed in each of 5 thoraco-abdominal injuries. The experience in the air corps with this type of wound was the same as that in the army, namely that if the liver had been penetrated, subphrenic drainage had to be provided through a subcostal stab incision if abscess formation was to be avoided.

Following debridement, aspiration alone of the pleural cavity was all that was required in 8 cases. In 13 cases in spite of aspiration, bloody fluid coagulated in the pleural cavity and was treated by removal through a thoracotomy incision and decortication of the collapsed lung.

Metallic foreign bodies were removed in 6 instances but metallic foreign bodies estimated to be less than 1 centimeter in any diameter were allowed to remain in the lung parenchyma without subsequent symptoms.

Four patients had empyema at the time of thoracotomy and decortication. Five other patients without frank empyema before thoracotomy and decortication developed small localized infected pleural pockets afterwards. These were subsequently treated by rib resection and drainage.

Six patients were returned to duty but the remaining 17 were returned to the U. S. for a prolonged convalescence.

Discussion

Some explanation is required for the much greater incidence of coagulated hemothorax and of empyema which occurred in the air force wounds as contrasted to the wound which occurred in ground troops as we had seen in North Africa.

There is no direct evidence but it is our opinion that the typical penetrating wound of the chest as it occurred in the Air Force was produced by a larger missile than in the ground troops. This would seem to have been a direct effect of the "flak" suit which provided almost perfect protection against small missiles. The larger missiles undoubtedly caused more damage to the lung paren-

chyma which would account for the greater incidence of empyema if it is assumed that this infection in most instances came from the bronchial tree as seemed to be the case in North Africa. It seems not improbable also that greater tissue damage should be associated with a greater tendency of blood extravasated in the pleural cavities to clot.

III. FELLOWS - UNIVERSITY OF MINNESOTA HOSPITALS

The following list gives the names of the Fellows on duty in the Hospitals at the present time, the type of service, and dates of assignment. This is subject to change.

| | <u>Service</u> | <u>Date</u> | |
|---|--------------------------|---------------------------------|---------------|
| | | <u>From</u> | <u>To</u> |
| <u>GENERAL SURGERY</u> | | | |
| Chas. Culmer and Walton Lillihei | Purple | Dec. 30, 1945 | Feb. 17, 1946 |
| J. Ordie Shaffer and Enrique Sanchez | Blue & Proctol. | " | " |
| Arnold Kremen and Manuel Moreno | Red | " | " |
| Ivan Baronofsky | Peds and Plastic | " | " |
| Leonard Peltier | Clinic & Yellow | " | " |
| Jerome Ettinger | House | " | Apr. 1, 1946 |
| David Gavisser | Surg. Path. | " | Feb. 17, 1946 |
| Stanley Friesen | Laboratory | Oct. 1, 1945 | June 30, 1946 |
| Manuel Moreno and Enrique Sanchez | MOR | Alternate wks. Dec. 30, 1945 | Feb. 17, 1946 |
| <u>NEUROSURGERY</u> | | | |
| Lyle French | Assigned to Neurology | | |
| Donald Simmons | Neurosurgery | | |
| Leonard Titrud | " | | |
| <u>ORTHOPEDICS</u> | | | |
| Wesley H. Burnham | Physiotherapy | | |
| Forrest Foreman | Orthopedic Cl. | | |
| Robert Elliott | Gillette Hosp., St.P. | | |
| Donald Lannin | Shriners' Hosp. | | |
| <u>UROLOGY</u> | | | |
| George B. Eaves (Fellow) | | | |
| <u>MEDICINE</u> | | | |
| David T. W. Kaung | Green Med. | | Feb. 1, 1946 |
| Marcus A. Keil | Yellow Med. | | " |
| David L. Fingerman | White Med. | | " |
| Elmer R. Hoyer | Med. OPD | | " |
| Raphael I. Weisberg | " | | " |
| Howard Wikoff | " | Jan. 17, | " |
| Howard L. Horns | Med. Res. | | " |
| Robert B. Howard | Laboratory | | " |
| Abraham I. Braude | Neurology | | " |

| | <u>Service</u> | <u>Date</u> | |
|--------------------|----------------|---------------|---------------|
| | | <u>From</u> | <u>To</u> |
| <u>DERMATOLOGY</u> | | | |
| Richard Steves | Dermatology | Jan. 12, 1946 | Oct. 30, 1946 |

PEDIATRICS

| | | | |
|-----------------------------|------------------|---------------|--------------|
| Forrest H. Adams | Ped. Resident | | Apr. 1, 1946 |
| William Mulholland | Children's Hosp. | | Apr. 1, 1946 |
| Douglas Lindsay | Pathology | | " |
| Theodore Panas | Asst. Resident | | " |
| Ferdinando Leyva | Pathology | Jan. ?, 1946 | |
| Mary Penington Christianson | OPD | | ? |
| Edward Nelson | OPD | | Apr. 1, 1946 |
| Irvine H. Moore | OPD | | ? |
| Robert Semsch | Mpls. General | | Apr. 1, 1946 |
| Robert Gibbs | Mpls. General | | ? |
| Wayne LaBiene | Mpls. General | | ? |
| Clifford G. Grulee | Asst. Resident | Jan. 22, 1946 | ? |
| Richard Mayon-White | Psychiatry | Jan. 22, 1946 | ? |

OBSTETRICS & GYNECOLOGY

| | | | |
|-------------------|------------|--------------|---------------|
| Rodney F. Sturley | Ob. & Gyn. | Jan. 1, 1946 | Dec. 31, 1946 |
| Roy G. Holly | " | Oct. 1, 1944 | Apr. ?, 1946 |
| Harold B. Hulme | " | July 1, 1945 | Apr. ?, 1946 |
| John S. Gillam | " | July 1, 1945 | Apr. ?, 1946 |

NEUROLOGY & PSYCHIATRY

| | | | |
|-----------------|--------------|--------------|--------------|
| Robert T. Patey | Psychiatry | July 1, 1945 | Apr. 1, 1946 |
| George W. Holt | " | Nov. 1, 1945 | Nov., 1948 |
| Zandoll Miller | " | Jan. 1, 1946 | Jan. 1, 1949 |
| John Haavik | " | Jan. 1, 1946 | Jan. 1, 1949 |
| Robert Cranston | Neurology | Jan. 1, 1946 | Jan. 1, 1949 |
| Lyle French | Neurosurgery | Oct., 1945 | Apr. 1, 1946 |
| Abe Braude | Neurology | Dec., 1945 | Apr. 1, 1946 |
| David Daly | " | July 1, 1945 | July 1, 1948 |

EAR, NOSE & THROAT

| | | | |
|---------------------|--------|--------------|--------------|
| Eugene F. McElmeel | E.N.T. | July 1, 1943 | July 1, 1946 |
| Neill F. Goltz | E.N.T. | Oct. 1, 1944 | Oct. 1, 1947 |
| Gudmundur Eyjolfson | E.N.T. | Nov. 1, 1945 | Nov. 1, 1948 |

| | <u>Service</u> | <u>Date</u> | |
|-----------------------------|----------------|--------------|----------------|
| | | <u>From</u> | <u>To</u> |
| <u>EYE</u> | | | |
| Wilfred J. Bushard | Eye | Dec. 1, 1943 | Dec. 1, 1946 |
| G. Howard Dolmage | Eye | July 1, 1945 | July 1, 1948 |
| John H. Peterson | Eye | Nov. 1, 1945 | Nov. 1, 1948 |
| Donald Cundy | Eye | Oct. 1, 1945 | ? |
| <u>ANESTHESIA</u> | | | |
| Isadore Kremen | Anesthesia | July 1, 1945 | June 30, 1946 |
| Grace Cauffman | " | Dec. 1, 1945 | Dec. 1, 1946 |
| Marvin Adams | " | Jan. 1, 1946 | Jan. 1, 1948 |
| Frederick Van Bergen | " | Jan. 1, 1946 | Jan. 1, 1948 |
| <u>X-RAY & X-RAY T.</u> | | | |
| Thomas B. Merner | X-ray T.) | July 1, 1943 | June 30, 1946 |
| Leslie P. Anderson | ") | July 1, 1944 | June 30, 1946 |
| Harry Mixer (Gen.Hosp.) | ") | Oct. 1, 1944 | Sept. 30, 1947 |
| Stanley Peterson | ") X-ray | Jan. 1, 1945 | Dec. 31, 1946 |
| (Miller Hosp. Fellow) | | | |
| Sam Levi | X-Ray T. | Jan. 1, 1946 | July 30, 1946 |

IV. GOSSIP

Bayard T. Horton and Francis M. Rachemann contributed a lively, interesting program for the General Staff on Friday, Jan. 18. The program originally scheduled for this date was postponed because the essayist was called home by a death in the family. More servicemen return for each meeting as our attendance is again returning to old time standards..

..Columbia Hospital, Milwaukee, a voluntary hospital, has an organized staff with departmental heads and divisional directors. Active staff consists of American Board certified specialists in each department and division. When change-over was made, shift was not made retroactive, so gradually only men trained for that specialty are bringing cases on their service. An additional service, General Medicine, has been formed to replace former general practitioner group. Majority of men on this service have privileges on Medicine and Obstetrics, but not on Surgery. They may bring patients to other services if they represent the medical aspect of that particular specialty. All surgical cases seen by Medicine on informal consultation basis for checkup before operation. Majority of patients in this hospital are medical and not surgical. Once a year the staff has its annual meeting which starts at 9 in the morning and usually lasts until 9 in the evening. Each department head and divisional director makes a report of his service, and also reviews the progress of the year in his field. This high standard of medical organization in a voluntary hospital is the natural result of the large number of American Board certified men on the staff....

March 1, 1945, 24,752 physicians have been certified by the 15 American Boards. The largest Board membership is Otolaryngology with 3,848 members. The American Board of Internal Medicine is second with 3,541. Certifications of the subspecialties by this Board include Allergy 75, cardiovascular disease 325, gastroenterology 157, tuberculosis 136, total, 693. Those certified in the sub-specialties are included in the above listing. The third largest Board is Surgery with 2,499 members. Sub-specialties in Surgery include Proctology 71 (included in above listing). The fourth largest Board is Ophthalmology 2,437 members. This is also the oldest as it was founded in 1917. Other Boards are Pediatrics, 2,318, Psychiatry and Neurology 1,899; Orthopedic Surgery, 896; Dermatology and Syphilology 710; Radiology, 2095; Urology 1,018; Obstetrics and Gynecology, 1,871; Pathology 1,047; Anesthesiology, 249; Plastic Surgery 161; Neurological Surgery, 163. Of those now certified, 37% received their specialty credentials in the last 5 years. The essentials of an approved Examining Board in the Medical Specialties include: 1. graduation from an approved medical school, 2. completion of an approved internship, and 3. a period of specialized training in the specialty (3 years of special training, and a further training of 2 years devoted to special study and/or practice. These are the minimal training requirements as some Boards require more training before specification. The majority of Boards grant some credit for military service, but most Boards limit the credit allowed to 1 year of training and/or 1 year experience. The place of the general practitioner in relation to the specialist is now under consideration. The American Medical Association has established a Section on General Practice. In order for this specialty to receive equal social and economic consideration with the other specialties a definite training program must be arranged. Most observers consider the specialty should include Internal Medicine, Obstetrics, Pediatrics, and the medical phases of the other specialties. It should be possible to direct our teaching in medical school in this direction for those who elect to specialize in General Medicine and certainly the training period as far as internship is concerned, can be regulated....

Continuation Study opportunities in this as well as in the specialty fields have been provided at the Center for Cont. Study since its opening in 1937. Majority of physicians in Basic Science Course this quarter have residencies in mind. Those in Medicine are preparing for Board examinations in Medicine or residencies or practice. O. H. Wangensteen's definition of a surgeon as an operating internist appeals to me. Psychiatry is one of first specialties to develop a phase of its specialty specifically applying to General Medicine. These specialties still must give general medical man of future insight into scope of their fields. Two specialties at Center most successful in teaching general men - Radiology & Proctology.....