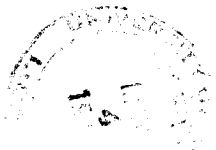


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**Staff Meeting Bulletin  
Hospitals of the » » »  
University of Minnesota**

**Medical Intelligence  
in the United States Army**

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William A. O'Brien, M.D.

I.

## UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

CALENDAR OF EVENTS

April 27 - May 3, 1946

Medical Visitors Welcome

No. 111Saturday, April 27

- 7:45 - 8:50 Orthopedics Conference; Wallace H. Cole and Staff; Station 21, U. H.
- 9:00 - 9:50 Surgery-Roentgenology Conference; O. H. Wangenstein, 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.
- 9:00 - 9:50 Pediatric Grand Rounds; I. McQuarrie and Staff; Eustis Amphitheater.
- 10:00 - 11:50 Medicine Ward Rounds; C. J. Watson and Staff; E-221, U. H.
- 11:30 - Anatomy Seminar; The Development of Accessory Bronchi in the Left Upper Lobe of the Lung and Related Changes in the Blood Supply; E. A. Boyden; and, Cytology of the Basophiles in the Anterior Hypophysis; J. Francis Hartmann; 226 I. A.

Sunday, April 28

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

Monday, April 29

- 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 Obstetrics and Gynecology Journal Club; M-435, U. H.
- 12:30 - 1:20 Physiology Seminar; Newer Micro Methods in Litid Analysis; George O. Burr; 214 M. H.
- 12:30 - 1:20 Pathology Seminar; Hemorrhagic Disease of the Newborn; Nathan Smith; 104 I. A.

Tuesday, April 30

- 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.
- 12:30 - 2:30 School of Public Health Seminar; Home Accident Problems in Health Departments; Aileen Tuttle; Room 15 MeS.
- 2:00 - 3:00 Dermatology and Syphilology; H. E. Michelson and Staff; Veterans' Hospital, Bldg. III.
- 3:15 - 4:15 Gynecology Chart Conference; J. L. McKelvey and Staff; Station 54, U. H.

- 3:45 - 5:00 Pediatric Staff Rounds; I. McQuarrie and Staff; W-205, U. H.  
 4:00 - 4:50 Surgery-Physiology Conference; Sympathectomy and Peripheral Vascular Disease; Drs. Dennis and Heringway; Eustis Amphitheater.  
 5:00 - 5:50 Roentgenology Diagnosis Conference; Drs. T. B. Merner, Eugene Ahorn and L. P. Anderson; M-515 U. H.

Wednesday, May 1

- 8:00 - 8:50 Surgery Journal Club; O. H. Wangensteen and Staff; M-515 U. H.  
 9:00 - 10:50 Neuropsychiatry Seminar; Staff; Station 60 Lounge, U. H.  
 11:00 - 11:50 Pathology-Medicine-Surgery Conference; Empyema, Pulmonary Emboli, Calcified Mitral and Aortic Valves; 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 Pediatrics Infectious Disease Rounds; W-205 U. H.  
 4:30 - Neurophysiology; Neurological Basis of Emotion; Dr. Joseph Maschermaier; 113 McS.

Thursday, May 2

- 9:00 - 9:50 Medicine Case Presentation; C. J. Watson and Staff; Todd Amph., U. H.  
 12:15 - 1:15 Pediatrics Seminar; Irvine McQuarrie and Staff; 6th Floor Eustis.  
 12:30 - 1:20 Physiological Chemistry; Karl Sollner; 129 M. H.  
 4:30 - 5:20 Ophthalmology Ward Rounds; Erling Hansen and Staff; E-534, U. H.  
 4:30 - Bacteriology Seminar; 214 M. H.  
 5:00 - 5:50 Roentgenology Seminar; Subject to be announces; Dr. W. E. Chamberlain, of Philadelphia; M-515 U. H.

Friday, May 3

- 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; Developmental Abnormalities and Diseases of the Eye; G. H. Dolmage; 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. MEDICAL INTELLIGENCE IN THE UNITED STATES ARMY\*

Gaylord W. Anderson

Collection of military intelligence is one of the oldest adjuncts of warfare, for knowledge of enemy plans and conditions is of utmost importance both in over-all planning and in immediate operations. The operation of such intelligence services must obviously be surrounded by an aura of secrecy and therefore does not constitute a topic of public discussion. There is, however, one phase of intelligence which has been openly discussed in public print and which is of interest to a public health group -- namely, medical intelligence. By this is meant the collection, analysis and dissemination of all possible information regarding medical, health and sanitary problems and practices of foreign areas. It is certain phases of this problem that I am privileged to discuss this afternoon.

Since time immemorial disease has been the inevitable concomitant of war. Plague and pestilence have sat as the uninvited and unnoticed guests at the military table, ready to upset the best-laid plans of the generals. There has never been a war in which disease has failed to cause more casualties than have bullets or shells; in all previous wars it has exacted a heavier toll of life, as well as being a more important cause of military ineffectiveness. Malaria, typhus and cholera have decided the course of battle and the destiny of nations, sometimes because man was incapable of combating their ravages, at other times because he failed to read correctly the pages of history and to make allowances for the inevitable counter-attack from these invisible and politically neutral enemies. Nor has disease confined its impartial ravages to the military forces. Too often the civilian population of areas ravaged by war has been a more pitiful victim of disease than the military forces. Their homes destroyed, their domestic economy thrown off balance, they themselves often

forced to the role of refugees, deprived of shelter, food and medical care -- civilian populations have been decimated by the ravages of disease.

It is no secret that the current war has produced situations in which disease has once more threatened to take its former role as a vital and determining factor in the success or failure of military operations. So far as the United States was concerned, the last war produced few unusual or novel disease-prevention problems. Our military operations were confined to areas with a sanitary culture not greatly dissimilar from that of our own country. Our allies had had almost three years of experience in the zone through which we were to fight and could share with us the sanitary lessons they had learned. In the present war the situation is entirely different. We have been forced to do battle in, or maintain our supply lines through, some of the most disease-ridden areas of the world. Had we deliberately selected the zones in which disease-prevention problems would be the greatest and the most varied, we would have departed but little from the pattern cut out for us by our enemies. We have had to face the problems of the humid steaming jungle where disease has for centuries successfully barred the effective entry of civilization. We have had to meet the baked and arid desert and the frozen north. Diseases unknown to us except as museum specimens or as textbook descriptions have become problems of vital everyday importance. This is truly a global war in which our problems of disease prevention have been as varied as has been the terrain or the climate of our far-flung battle-front.

Medical Intelligence, as developed in the Preventive Medicine Service of the Office of the Surgeon General of the United States Army, has had as its major function the collection of data regarding the health problems and facilities of these areas where military forces might be stationed or operating. The basic purpose of this intelligence has been to determine the disease hazards to which our troops might be exposed so that adequate provisions might be made

\*Reprinted by permission from the Canadian Journal of Public Health, February, 1945.

to combat these hazards. The Medical Intelligence Division had its inception in the era of hemispheric defense when we were faced with the problem of stationing garrisons in the defense bases made available to us in Canada, the West Indies and Latin America. The proper equipping of such forces depended on detailed knowledge of the hazards to which they were to be exposed and of local practice and facilities to meet these problems. Because a friendly garrison force has closer relations with the civil population than does a conquering combat army, exact knowledge of local conditions in a friendly or belligerent nation is of as great importance as detailed information about a hostile area.

The sudden expansion of our military problem from one of hemispheric defense to one of active combat on a truly global front has meant that Medical Intelligence has enlarged its sphere of interest to cover all parts of the world outside of the continental United States. As no one could foresee the exact future pattern of war, the Medical Intelligence Division has operated on the theory that it must be prepared to furnish information about any area at any time, rather than waiting to assemble data in a hasty scramble after the need has arisen. To this end, all areas have been or are being studied even though the immediate need for certain data is not always apparent. This policy of global coverage has yielded rich dividends.

There is no limit to the type of medical information that may be of potential value to a military force. In its earliest stages Medical Intelligence confined itself to rather simple evaluations of the major and peculiar disease hazards of an area, but as experience has been obtained and lessons learned as to types of information desired, the coverage has become constantly broader. For example, the problem of administration of civil affairs has introduced a need for details far beyond those required by a task force. Similarly the medical problems that will arise in the postwar rehabilitation will be such as to require very complete data on prewar and current medical needs and facilities. The result of this broadened

horizon has been that the current surveys prepared by Medical Intelligence have become more comprehensive documents than were the original studies.

A typical survey is broken down into several components. After a brief introduction describing the geographical features essential to an understanding of the medical problems, there is a discussion of the health organization of the country. Wherever a military force is located, whether on a friendly or a belligerent basis, the surgeon must be familiar with the public health structure of the community for he will of necessity have many dealings with local officials.

A second section deals with environmental factors. Under this heading come such topics as water supply, waste disposal, vectors of disease, dangerous and pestiferous animal life, problems of food supply and sanitation and even a consideration of flora of potential medical significance. The need for exact and detailed information about water supplies is self-evident. In the United States Army the problem of water supply is divided between the Corps of Engineers and the Medical Department, the former being responsible for the furnishing of an adequate quantity, the latter for the sanitary quality. A medical intelligence survey must therefore concern itself primarily with the problem of the safety of the supply and of local facilities to guarantee this safety: character of sources, degrees of pollution, facilities for treatment and purification, and hazards of storage and distribution--all of these are matters about which detailed information is essential. Similar data are essential regarding waste disposal problems and practices.

Full knowledge of local vectors of disease is a matter of major concern, especially in tropical and subtropical areas where insect-borne diseases are of such importance. One of the major recent developments in our approach to the control of such diseases has been our appreciation for the need of species control. We have come to learn the need

for exact entomological knowledge as a condition precedent to the institution of an intelligent control program. Today we appreciate the fact that programs that fail to take cognizance of such knowledge may be not only wasteful but may actually be harmful in that they increase the breeding of local vectors. The drainage of swamps is of no value in malaria control if the local vector breeds in running streams; clearing of timber and underbrush, effective in the control of shade-breeding mosquitoes, may actually increase the number of mosquitoes if the local vector breeds in sunlight, as is the case in certain very important areas. The important local vectors in closely related areas may be quite different in their habits and breeding requirements. It is therefore of utmost importance to have as detailed information as possible regarding the distribution, occurrence and habits of insects and other arthropods that may serve as vectors of disease to man. The importance of such diseases as malaria, filariasis, dengue and scrub typhus bespeaks the need for having detailed information in the hands of the medical officers of any force before arrival in a new area. In some areas information regarding pest mosquitoes and flies is of vital concern as these may be so numerous as to constitute a real hazard even though they do not transmit specific disease.

A third section of these reports deals with medical and hospital facilities. Exact knowledge as to the quantity and quality of medical care of the civil population is of military concern, for even in friendly areas a military force obtains much labor assistance from local civilians. The need for such information is obvious to an occupying force charged with care of health of a conquered area. Among the items of concern under this heading are the number and distribution of medical personnel such as physicians, dentists, veterinarians, nurses, midwives, and local cultists; sources of drugs, biologicals and medical supplies; and activities of social agencies.

The fourth topic is that of diseases of the area under consideration. More enumeration of diseases to be encountered

is of little value. The surgeon of the task force must be informed as to the relative importance of each disease, its seasonal occurrence, geographic and social distribution, local vectors, extra measures locally practised--in brief, of all the epidemiological factors governing local occurrence of the disease in question. Relative importance must be evaluated from both the military and civil viewpoint, for these are not by any means identical. Thus typhoid fever may be a major health problem to the civil population yet of only minor import to an immunized military force disciplined with respect to sanitary procedures. Conversely dengue may, from its very endemicity, be a minor civil problem, yet be a major problem to a task force coming from a dengue-free area. All of these factors must be evaluated in the light of what can be learned regarding factors governing the local occurrence of a disease.

A final section of such surveys contains specific suggestions as to precautions to be observed locally to safeguard the health of troops. Here are brought together the conclusions derived from study of the health problems of the area. These recommendations cover specific measures over and above those procedures which are routine for any military force wherever located.

I have often been asked as to the sources of all this information and the type of persons employed to assemble and analyze it. We have attempted so far as possible to utilize personnel with a first-hand acquaintance with the area in question or at least a reading knowledge of the medical literature of the country. A staff capable of handling medical literature in over fifteen languages has been the backbone of such work. When dealing with countries with which they were not personally acquainted they have usually had the benefit of counsel and advice of those who were so acquainted. They have scoured the libraries in search of information, have talked with persons who had lived in these areas. Such governmental agencies as the Smithsonian Institute and the Bureau of Entomology and Plant Quarantine

of the Department of Agriculture have furnished invaluable information regarding insect distribution. Governments in exile have virtually opened their files. Briefly, no plausible source of information has been neglected and no person or agency likely to have information about such areas has refused to make such completely available. Everything has been grist that has come to the mill.

It would be pleasant to be able to appraise the value of this type of intelligence but that must rest with the historian. From the many demands for information one may infer, however, that Medical Intelligence serves a useful purpose. Surveys of foreign areas have been made available for training purposes in this country, for orientation of forces leaving the country, for briefing of forces in the theatres. They have been furnished freely to cobelligerent nations whose military forces face the same problems as do ours. They have been made available to governmental agencies concerned with postwar planning and relief. In fact, they have filled a need for detailed information by a great variety of public agencies other than the military. It is our hope that back of all this immediate demand, which has been very gratifying to those of us engaged in this program, history will record that Medical Intelligence through pointing out the health hazards and needs of foreign shores may have played some small part in reducing the disease casualties of this war and of hastening the control of disease in the period of postwar reconstruction.



### III. GOSSIP

Sixty years ago a surgeon deliberately removed the appendix for the first time. Sixty years ago Dr. Justus Ohage was the first to remove an infected gallbladder in St. Joseph's Hospital, St. Paul, (on September 24, 1886). If Doctor Ohage had lived, he would have been 100 years old this year according to Justus Ohage, Jr., in the current issue of Minnesota Medicine...I attended the Annual Meeting of the Iowa State Medical Society in Des Moines, April 19, 1946, which was held in the Hotel Fort Des Moines under the Presidency of R. D. Bernard of Clarion. The society meets in joint session in the morning and in sections in the afternoon (Eye, Ear, Nose, and Throat, Medicine, Surgery, Pediatrics, Chest, Orthopaedics, and Obstetrics). I note in the list of past presidents, that the only surviving member is Walter L. Bierring, the State Health Officer. There are few men in Medicine who are better loved than he, and Iowa is proud to count him one of her leaders. The scientific exhibits were unusually good; the demonstrations of the pathology of histoplasmosis, malaria, and amebiasis, brucellosis and tumors being outstanding. I spoke on the "Recent Developments in Hospital Organization and Medical Practice that May Affect the Future"...On April 20th to Chicago where The American Cancer Society elected regional representatives to form a national directorate. Collection for funds this year is reaching a new high. In Minnesota several counties are over the top and an opportunity is afforded to all to donate. The purpose of the collection is to provide funds for research, education, and service. Forty per cent will go to New York for distribution for research and service, and the balance will remain in Minnesota for local purposes. Greatest problem confronting the medical profession is how to provide detection "screen" services for the apparently well who may have cancer. If the service is inclusive, it will require complete diagnostic surveys and if it is a screen for referral only, a certain number of mistakes will be made. To find a case of tuberculosis through screening costs several thousand dollars; it is not known how much it would cost to find cancer by the proposed methods...The campus is full

of visitors this week, as the University of Minnesota installs its eighth president, Dr. James L. Morrill. Program has attracted many visitors and as I see them going from lecture to lecture, I am reminded of the character in "You Can't Take it with You", who when he retired from active business life, spent full time attending lectures at Columbia University. Extra curricular events in a modern university have become so numerous, that one could spend most of his time going from one to the other. Our weekly Calendar of Events is a good example, and if the regular class exercises at the Center for Continuation Study are included, it would be impossible to attend all. Dr. E. L. Touhy was a visitor this week. He amazes all of his friends with his grasp of current affairs and future trends. It does not seem possible that any man who is as busy as he is with his connection with a large clinic could be so well informed in so many fields. One of the earlier clinic organizers in our state, he has long been interested in group Medicine. Interest on the part of our graduates in group practice suggests that a portion of our class time in Orientation to Practice might be spent on this subject. There are only about 400 organized clinics in the United States, and many of them limped badly during the war. It seems ideal for physicians to work together, but it is much more complicated than Mrs. Roosevelt remarked in one of her columns, "It is too bad that all doctors in the United States do not work together in groups like the Mayo Clinic"; although cooperation is an important factor in the success of a group it should not be carried to a point of blind agreement on all issues. The State of Minnesota has some outstanding groups, and I believe they should be encouraged to continue to develop higher standards... The Minnesota Hospital Association has just announced its survey of existing Hospital facilities in May. The survey will be conducted by Dr. Viktor Wilson, under the direction of Raymond M. Amberg, Chairman of the Governor's Committee. There is great need for this information, as many communities plan to build beyond any possibility of properly staffing or supporting the hospitals.