

BAI
Lynn
1. G-H-R-O-N-O-L-O-C-Y

1 April 1942

On or about this date, 33 medical officers, 2 dental officers, 4 hospital corps officers, and 239 hospital corpsmen reported to Com. 12th Naval District, San Francisco, California, to form a unit known as "Hospital Facility Project Roses", under the command of Capt. John E. Porter, (MC) USN.

15 April 1942

Unit departed San Francisco, California aboard S. S. President Tyler, in a convoy.

4 May 1942

Unit arrived at Vila, Efate Island, in the New Hebrides group.

5 May 1942 to 18 Sept. 1942

During this period, unit moved ashore and took over local civilian buildings to form a temporary hospital of 450 beds, providing a hospital facility during the time a regular planned hospital was being constructed.

During this period, too, the name of this medical facility was changed from "Hospital Facility Project Roses" to U. S. Naval Base Hospital # 2", and the first battle casualties were received by air ambulance.

20 Sept. 1942

U. S. Naval Base Hospital # 2 was commissioned. Consisted of 30 wards with a regular bed capacity of 600, and capable of expansion to 1000 beds. Hospital was located $2\frac{1}{2}$ miles from Vila at an elevation of 500 feet, and occupied 60 acres.

On this, its opening day, it received 387 patients from the temporary hospital in Vila.

December 1942

24 Navy Nurses arrived.

30 September 1943

Last battle casualties received.

1 February 1944

Bed capacity was reduced to 500. Capt. Porter was relieved by Captain F. W. Carll, (MC), USN as Medical Officer in Command.

1 July 1944

Bed capacity reduced to 200.

1 August 1944

Ceased functioning as a Naval Hospital.

1 November 1944

Hospital buildings, equipment, and supplies having been crated, the entire hospital with its personnel of 4 officers and 19 enlisted men embarked on the S. S. Terry B. Stephenson for Noumea, New Caledonia, for staging.

2 November 1944

Arrived Noumea.

12 November 1944

Off-loading completed and staging began.

1 March 1945

Staging completed. Now a 1600 bed hospital.

6 July 1945

Began loading hospital on S. S. John Holmes for transportation to new site at Subic Bay, Luzon Island in the Philippines.

19 July 1945

S. S. John Holmes departed Noumea for Subic Bay with first echelon Base Hospital # 2, and with Captain Carll aboard.

11 August 1945

S. S. John Holmes arrived Subic Bay.

12 August 1945

Base Hospital # 2 Camp opened at Cupi Point, Subic Bay.

14 August 1945

Captain Carll relieved by Captain B. M. Summers, (MC), USN as Medical Officer in Command.

16 August 1945

Word received that Armistice had been declared.

6 October 1945

S. S. Caledonia departed Noumea with second echelon of hospital.

24 October 1945

S. S. Caledonia arrived Subic Bay.

2 November 1945

Off-loading hospital material from S. S. John Holmes began.

16 November 1945

S. S. Caledonia departed with most of second echelon of Base Hospital # 2 for Samar, for T.V.I. to Medical Storehouse there.

29 November 1945

Off-loading of S. S. John Holmes completed.

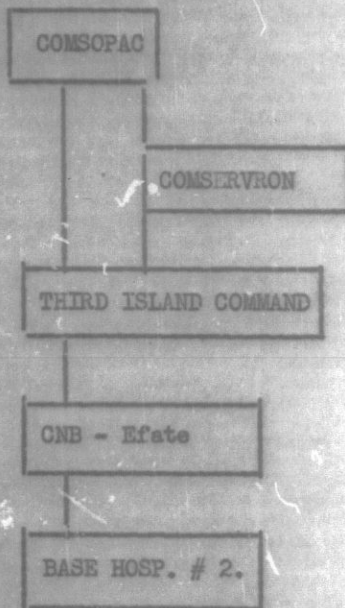
14 December 1945

Orders to decommission Base Hospital # 2 received from Bureau. Processing of material for decommissioning began immediately.

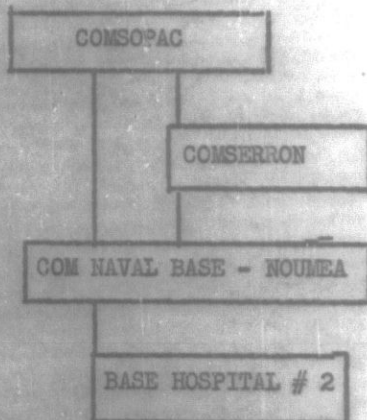
II. O-R-G-A-N-I-Z-A-T-I-O-N

The basic organization of Base Hospital # 2 since its inception has been that of a standard Naval Hospital.

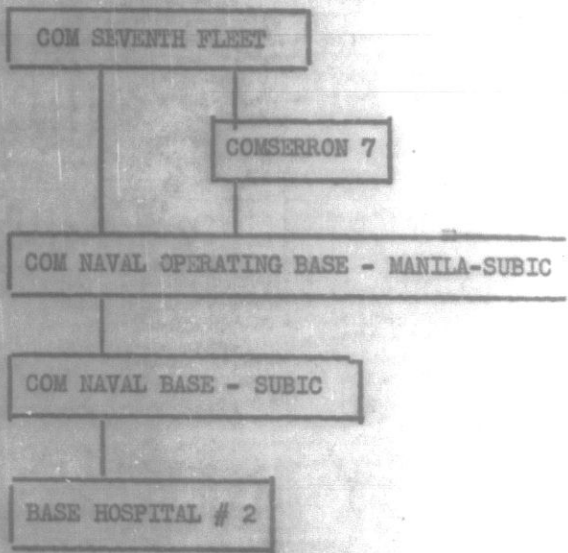
The hospital's position in the Naval chain of command has varied according to its location. While at its first location (Efate), its command chain was as follows:



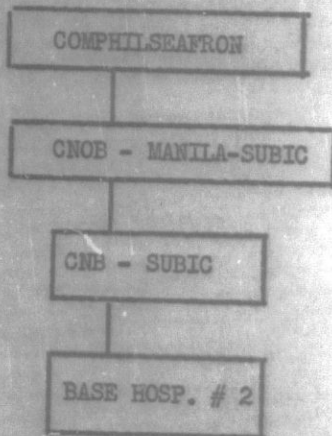
When it moved to Noumea, its command chain was as follows:



When the Hospital moved to Subic Bay, it was transferred to the jurisdiction of the Seventh Fleet and its command chain was as follows:



When ComPhilSeaFron took over this area from Com. Seventh Fleet,
the hospital chain of command was changed to its present one:



III. N-A-R-R-A-T-I-V-E A-C-C-G-U-N-T

In the early part of March 1942, orders were issued to 33 medical officers, 2 dental officers, 4 hospital corps officers and 239 hospital corpsmen to report to the Commandant 12th. Naval District, on or before 6 April. This group of medical personnel, was known as "Hospital Facility Project Roses". In command of this hospital facility was Captain John E. Porter (MC), USN., and Captain F. W. Muller (MC) USN. was ordered as executive officer. Included in this group was the U. S. Naval Reserve Specialist Unit from Dayton, Ohio, and a U. S. Naval Reserve Specialist Unit from St. Louis, Mo., the remainder of the medical officers were from various cities throughout the country. This medical activity brought with it sufficient equipment and supplies to establish a hospital of 600 permanent beds and was capable of expansion to 1000 beds with the use of cots.

In April 1942, this medical facility left the U. S. as an integral part of "Project Roses" - a combined Army-Navy operation - under the overall command of Brig. General Rose, U. S. Army.

The entire organization landed at Vila, Efate Island in the New Hebrides on 4 May, 1942, and the "Third Island Command" was established there under General Rose who was subordinate to Admiral Halsey (ComSoPac). Commander Naval Base - Efate was subordinate to the Third Island Command, and in charge of all island activities.

The Third Island Command had as its function to support the Solomons Campaign and this hospital unit was intended to receive the casualties from this campaign.

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During this time, the Japs were very active in the Solomons and either air raids or landings were expected in this area at any time. Because of this, it was necessary to unload the ships of the convoy with all haste and make preparations to combat the enemy should they attack. The unloading operations were an all hands evolution and more than 40,000 tons of cargo were discharged as rapidly as possible. During the unloading of the ships a survey of the town of Vila was made to find temporary facilities so that the medical activity could function while the other units were being established. This survey revealed that all the women and children of the French-British residents had been evacuated to Australia or New Zealand and with the male population doubling up, many of the buildings were available. For the temporary hospital facilities a part of the small civilian French hospital, a court building, a church and eight residences were taken over and these were found of sufficient capacity to serve as the hospital and also house the medical personnel. These buildings were somewhat scattered throughout the town of Vila but did furnish room enough for 450 beds during the time required for the erection of the huts which were to become Naval Base Hospital # 2. This temporary hospital operated from 5 May 1942 to 15 September 1942.

The site selected for the erection of Base Hospital # 2 was within a coconut plantation at an elevation of about 500 feet, located about 2½ miles from the town of Vila. The Frenchman from whom the 60 acres of hospital reservation was rented had his home adjoining and this plantation was known as "Bellevue". The view from this area took in two salt water lagoons connected with the Pacific Ocean to the South and East while in the other points of the compass one could see various small mountains covered with dense jungle making the name Bellevue most appropriate.

The island, Efate, is about 25 miles in length and 17 miles wide. The basic formation consists of a lava under-stratus covered with coral and a shallow top soil of rich humus. The vegetation is tropical and a large portion of the island is covered with dense jungle. There are several mountain ranges reaching an elevation of about 2,200 feet. Throughout the island are various sized plantations belonging to foreign nationals. The chief products grown on these plantations are copra, cocca and coffee with the labor being done by Tonkinese (Indo-Chinese) brought into the island on a contract basis.

The buildings used in construction of Base Hospital # 2, were Iceland, Stran-Steel, Quonset, Butler and Dallas type huts together with several different sizes of sheds, which were used as generator shelters. The original hospital had 30 wards of various size huts constructed singly, or in units of two or three end to end, as was considered necessary. There were 203 hut units and 6 sheds used in the original set of buildings. These 30 wards provided a bed capacity of 600 permanent beds with expansion to 1000 beds possible by utilizing cots. The patient load on several occasions rose to nearly 1000.

The officers huts, used as quarters, were either of the Quonset or Stran-Steel type, and all were equipped with toilet, hot and cold showers and lavatory.

The crews quarters were of the same type huts as the officers but had double decked bunks. The crews showers and wash rooms were separated from the covered latrines and each shower and wash room was supplied with hot and cold water.

The Third Detachment of the First Construction Battalion with the aid of the hospital corps personnel erected the buildings for this first Base Hospital in the Pacific Area.

Sometime during the construction of the hospital the name of the original medical activity "Hospital Facility Project Roses" was changed to the U. S. Naval Base Hospital # 2.

The commissioning date of the hospital was 19 September 1942 and on this date 387 patients were moved from the temporary facilities in the town of Vila to the new location.

19. In December 1942, twenty five members of the Navy Nurse Corps reported for duty with Lieutenant (jg) Ida M. Ilstad (NC) USN. as the senior and Chief Nurse. In March of 1943 the staff of nurses was increased by twenty five additional members. During the peak activity of the hospital the staff of nurses remained about fifty at all times.

It was later considered necessary to expand the size of the hospital to 1000 permanent beds since it was operating beyond capacity soon after its completion. This expansion program was completed about the middle of 1943, which provided the 1000 permanent beds and space for 500 cots. The hospital at this time consisted of 207 buildings, made up from 299 units as follows:

| <u>HQT TYPE</u> | <u>NO. UNITS</u> | <u>NO. BUILDINGS</u> |
|------------------------|------------------|----------------------|
| Quonset | 139 | 109 |
| Iceland | 48 | 20 |
| Butler | 2 | 2 |
| Stran-Steel | 77 | 50 |
| Dallas | 19 | 13 |
| Stran-Steel 40' X 100' | 3 | 2 |
| Sheds | 11 | 11 |
| TOTAL: | <u>299</u> | <u>207</u> |

It so happened that the expansion program to 1000 permanent beds was unnecessary due to the progress of the war and the construction of other naval hospitals to the North. Some of the new wards were never used for patients.

The source of water supply was from two rivers located several miles from the reservation. The largest river was about 4 miles from the hospital while the smaller river was only two miles. It was found that that the smaller river would furnish sufficient water throughout the entire year and the larger river supply was abandoned. The water shed of both these rivers was from an almost impenetrable jungle which was uninhabited. The water was purified and chlorinated at a pumping station, located near the river, and pumped to the hospital storage tanks which were situated on the highest ground of the hospital reservation. The water was clear, potable and at all chemical and bacteriological examinations was found to be of excellent quality. There were no diseases ever attributed to the water supply.

The food problem, during the first several months, was serious due to the lack of fresh vegetables, eggs, butter and fresh milk, as these items were not supplied by the Army Quartermaster. It was also impossible to obtain these products from local source. in the quantities necessary from such a small settlement as Vila. The difficulty was finally overcome by furnishing seeds to local planters and then buying their products. The dairy products and eggs were eventually augmented by shipments from the United States and New Zealand. It was discovered that on this island vegetables would grow the year around if the soil was well tilled and fertilized. The hospital diet was markedly improved by this enterprise.

Malaria was a serious problem on the island of Efate.

From the time of arrival on 4 May 1942 to 1 January 1943 there were 2,949 admissions for this disease at the hospital and the small scattered field dispensaries on the island.

2/ During 1943 there were 3,050 cases of Malaria admitted or re-admitted to the hospital, 931 cases originated on this base and 531 of these cases were first admissions. Of these 3,050 cases 2,119 originated on another island in the New Hebrides and were transferred to this hospital. During the seven months in 1944, that the hospital functioned there were only 277 cases of malaria admitted and 169 of these cases were re-admissions. This is not a true comparison with the two previous years as the number of personnel on the island during 1944 was being diminished, continually, by transfer. The work of the combined Army and Navy Malaria Control Units which covered the island proper showed excellent results and those units deserve much credit for the greatly improved conditions. The hospital maintained its own malaria and sanitary control unit which controlled both the reservation and a 1½ mile perimeter outside for insect breeding.

Captain John E. Porter (MC) USN had the distinction of being the first commanding officer of U. S. Naval Base Hospital # 2 and was relieved by Captain F. W. Carll (MC) USN in February 1944, who in turn was relieved in August 1945 by Captain B. M. Summers (MC) USN.

The hospital served its intended purpose during the years 1942 and 1943 when the war in the South Pacific was not too far distant. However as the combat zones moved North and other hospitals were constructed nearer the forward areas, the usefulness of Base Hospital # 2 diminished. During the year 1944 no battle casualties were received and only local patients

were admitted, coming from the various activities stationed on the island and from ships visiting the port of Vila. The census of patients slowly diminished throughout the year as the military activities were ordered to other areas.

The situation finally arrived whereby it became necessary to dismantle the hospital in order to be able to release, from the island, other military activities which the hospital was dependant upon. The hospital, during its active stage on the island of Efate, received the first war casualty in July 1942 and handled a total of 15, 758 cases while there.

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The dismantling program actually began in February 1944, when two units, of 400 beds each, were prepared and segregated for shipment as additions to hospitals planned for advanced bases. These units were never used as planned and are still a part of the hospital.

In June 1944, orders were received to reduce the bed capacity from 500 beds to 200 beds on 1 July 1944, and to cease functioning as a hospital on 1 August 1944. The process of dismantling was gradually going on with the aid of a small force of Sea Bees during these months. On 1 November 1944 all buildings, equipment and supplies were crated and loaded aboard ship. The entire hospital, with its personnel of four officers and 19 men, embarked on the S. S. Terry E. Stephenson for Noumea, New Caledonia, the selected staging area, arriving on 2 November 1944.

The unloading of the ship required about ten days and this work was done by the Army. The hospital was assigned to the 6th. Marine Dump area which the Marines were abandoning. This staging area turned out to be ideal for the staging task.

There were 17 storehouse buildings in this area, each 40 X 100 feet, and it was necessary to use 10 of these buildings to re-handle the supplies and equipment. The hut parts and much of the heavy equipment was dumped in the 47th. Construction Battalion Area where it was all gone over for repairs and re-crating by that activity. The 47th Construction Battalion did excellent work on all this equipment saving much from survey by their competent repair work and were commended for a task well done. All the medical supplies and equipment were sorted and segregated by the hospital corps personnel with the aid of borrowed machinery from the base to which we were attached.

23 During the eight months that Base Hospital # 2 was staging in Noumea at the 6th. Marine Dump area, 23 men lived in tents left by the Marines and subsisted at the Receiving Station. Base Hospital # 2 maintained the upkeep of the entire dump and furnished all electrical power used in the area with portable generators. The officers attached to the hospital varied in number from 4 to 6 and they were quartered at Quonset Village and the Receiving Station.

This hospital had its staging completed on the first of March 1945 and after that time, with added enlisted personnel having reported for duty, it accomplished many things intended to speed the erection of the new hospital when it arrived at its new location. Some of the work done by the increased number of personnel was to put all bagged cement into oil drums, repaint all vehicles, the manufacture of a large electrical switch panel to control the 7 generators, and the development and manufacture of a heat conversion unit for use in a circulatory hot water system.

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Much of the material used in the above mentioned work was acquired from salvage dumps.

On 6 July 1945, the work of loading the hospital aboard the S. S. John Holmes for transportation to its new location at Subic Bay, on the island of Luzon in the Philippines, was begun. The new role of Base Hospital # 2 was to provide medical support for the forthcoming assault on Japan, and with the first echelon of the hospital aboard, the vessel departed, with Captain Carll, 3 hospital corps officers, and 20 enlisted men, and arrived at Subic Bay on 11 August 1945.

On 14 August 1945, Captain Carll was relieved as Medical Officer in Command of Base Hospital # 2 by Captain B. M. Summers (MC), USN.

24 An administrative headquarters for Base Hospital # 2 was immediately set up at the Naval Base, Subic Bay, and detailed plans for the construction of a 1600 bed hospital were given much thought and finally drawn up.

The site for the construction of the hospital was finally decided upon as Cubi Point, on an elevated point of land jutting out into Subic Bay, just across from the Naval Base. The proposed date for completion of the hospital was 1 January 1946, although it was obvious that construction would have to be held up until after the rainy season to prevent the heavy equipment from being hopelessly mired in the mud. However, a camp for Base Hospital # 2 personnel was established near the site.

Meanwhile, the second echelon of Base Hospital # 2 left Noumea aboard the S. S. Caledonia, with the remainder of the hospital material, 1 hospital corps officer, and 19 enlisted personnel, and arrived at Subic Bay on 24 October 1945.

During this particular time, peace rumors were prevalent and finally word came that hostilities had ceased. This event further complicated the problems of the hospitals commanding officer in that it posed the question as to whether or not the hospital would be constructed at all, or whether it would be constructed with a reduced capacity, or whether a hospital of more permanent peace-time construction should be built instead of the temporary quonset hut material.

While endeavoring to find answers to these questions, the S. S. John Holmes was off-loaded at the Cubi Point Camp, and some rolling stock was taken off the S. S. Caledonia.

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As it became more and more apparent that the hospital would not be constructed, the bulk of the equipment and supplies were left aboard the Caledonia, and she was sent to Samar in the Philippines, along with some hospital personnel who were instructed to inventory all hospital material aboard the ship, return certain items to the Base Dispensary Subic Bay, and store the remainder at the Medical Storehouse at Samar, for surplus declaration. This was done.

In the meantime, a dispatch was received from the Bureau on 14 December 1945 to decommission the hospital and dispose of it according to existing instructions. This is being complied with at the present time. It is anticipated that the hospital will be ready for final decommissioning on or about February 28, 1946.

IV. A-D-D-I-T-I-O-N-A-L D-A-T-A

(NOTE: - The following excerpts were taken from various past reports of Base Hospital # 2. They are considered noteworthy, in this historical summary, as being interesting sidelights on the many problems, practices, and accomplishments of this hospital, particularly during its early, pioneering phase.)

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(Page 13 - Annual Sanitary Report for 1942) - Many of the huts, particularly those comprising the Commissary, Mess Halls and Neuro-psychiatric Department, have been constructed from four to five feet below the surrounding ground level. As a result of this lack of familiarity with the requirements for tropical construction and the failure to provide adequate drainage facilities, surface water often reaches a depth of 6 to 8 inches while flowing across the decks of some of the units during heavy rain storms.

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(Page 18 - Annual Sanitary Report for 1942) - The "Balloon" tires on the wheel stretchers are improperly secured to the rims, resulting in tearing of the valve stems.

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(Page 22 - Annual Sanitary Report for 1942) - The waterless toilets used by the patients is manufactured by San-Equip, Inc., Syracuse, N. Y. It consists of a large metal bowl placed beneath the floor and extending outward beyond the wall of the building. A metal tube extends upward through the floor and a wooden seat and hinged cover are attached to the top. A ventilator extends upward from the bowl. This pipe passes to the outside of the building.

An agitator, consisting of a handle, rod and disc, is provided for a few of the toilets. "Perchloron", a preparation containing calcium hypochlorite, manufactured by the Pennsylvania Salt Mfg. Co., Philadelphia, Pa., is added in aqueous solution to each tank. Frequent removal of the contents by pumping is necessary.

The waterless toilets should have been installed outside of each ward and not occupy space provided for beds. At times a breeze strikes the ventilator at the proper angle and the foul odor from the bowl is driven into the ward. As previously stated, many of the wards have been built below the level of the surrounding ground. Due to this fact, the toilet bowls were placed below the surface of the ground. During rain storms, the bowls fill with water making it necessary to pump them, often twice daily.

27 It is the unanimous opinion that the waterless toilet is entirely unsatisfactory and that a sewage system should be installed.

(Pages 23 & 24 - Annual Sanitary Report for 1942) - A small number of the sick and injured for this hospital are transported by ships from the Field Hospital at Base "Cactus" to Vila, N. H. However, most of them are carried by transport ambulance aeroplanes to the local airfield for further transfer to this hospital by ambulance, approximately 6 miles distant. A direct road is now under construction which will reduce this distance to 3 miles.

A "Quonset" hut has been placed adjacent to the landing strip at the airfield for the reception of patients during rain storms. A Naval Medical Officer and Hospital Corpsmen are on additional duty at the airfield

and supervise the transfer of the patients from the aeroplanes to the ambulances for further transportation to this hospital. The Junior Medical Officer-of-the-Day also assists during the transportation of the patients from the airfield and wharf to this hospital.

When the estimated time of hospitalization exceeds two months, the patient is transferred to an evacuation vessel for further disposition. Should certain specified ships that are returning to the United States become available for transportation services, such patients as are considered to be permanently unfit for further duty in the South Pacific Area are transferred to them for further disposition.

Four ambulances, "International", field type, U.S.M.C., were received with the original commissioning outfit. Due to their poor riding qualities, three of the ambulances were exchanged with the local Army Medical Organizations, for three of the "Dodge" manufacture.

When patients are to be transported in large numbers the services of additional ambulances located on this island have been required.

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(Page 25 - Annual Sanitary Report for 1942) - The work of the hospital corpsmen has been very satisfactory, with trained technicians for all departments, except Dental Department.

(Page 25,26,27 - Annual Sanitary Report for 1942) - The proportion of patients assigned to the medical service has fluctuated from approximately 40 per cent to 50 per cent of all admissions. These percentages are influenced largely by the varying influx of patients with malaria or with wounds acquired in combat. For instance during December 1942, of the 717 admissions for all causes, 211 or 29.8 percent (or approximately 1 out of

each 3 patients) were admitted for malaria or (DU) malaria.

Malaria continues to be the paramount medical problem in this area. The problem of antimalarial therapy is a serious one. It was soon learned that the therapeutic programs usually employed in the United States are inadequate in this area. Hence, our patients are usually treated more intensively and often for a longer period. Atabrine has become the drug of choice. No significant toxic reactions from atabrine have been observed. Similarly, atabrine has been found more effective than quinine for continuous suppressive treatment (so-called "chemoprophylaxis") in infested areas. The present plan of antimalarial therapy in cases of ordinary severity is an adaptation of the so-called "combined QAP treatment". During the first three days a total dosage of 30 grains of quinine hydrochloride and $4\frac{1}{2}$ grains of atabrine is given orally. If quinine hydrochloride is not available for oral administration, quinine sulfate tablets are put into solution before being given. No significant reactions have been observed as a result of combining quinine and atabrine for this short period. The purpose of combining atabrine with quinine is to build up an effective level of atabrine in the blood and tissue fluids while the quinine is exerting its effect. Our experience shows that atabrine is relatively ineffective during the first three or four days of its use, because of its relatively slow absorption. For instance, in changing from quinine to atabrine prophylaxis, it has been found necessary to give atabrine during the last five days in combination with the quinine in order to establish an effective level of atabrine and to prevent the development of clinical malaria in exposed and infected persons. On the fourth to the seventh day (inclusive), $4\frac{1}{2}$ grains of atabrine are administered daily.

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On the eighth to the twelfth day (inclusive), plasmochin, graine one-third, is given daily, one tablet after the evening meal. One-sixth grain tablets of plamochin have not been available; otherwise, three one-sixth grain tablets would be employed. At the end of the course of therapy, blood smears are made to determine the presence or absence of sexual forms of plasmodia. The patients who respond to the regime are then returned to duty and are placed on continuous atabrine "prophylaxis", usually administered under strict medical supervision by the check-off system. After three months of atabrine "prophylaxis", given in dosages of 3 grains twice weekly, (with a two or three day interval), quinine sulfate, fifteen grains, is given daily for one month. During the last five days of this month, the person is given in addition three grains of atabrine after each evening meal, to avoid a "Break-through" when the shift is made from quinine to atabrine "prophylaxis". "Prophylactic" dosages of five to ten grains of quinine are ineffective in this area.

For those with pernicious (cerebral or algid) malaria, quinine dihydrochloride is administered intravenously in dosages of ten grains in 200 cc. of physiologic solution of sodium chloried, as required. For those who do not respond promptly to oral therapy or who are unable to retain oral medication because of vomiting, atabrine dihydrochloride is given intramuscularly. Usually two to four such injections of atabrine such injections of atabrine dihydrochloride are sufficient and oral administration can then be resumed.

Since July the supplies of antimalarial drugs have been adequate. Many needed drugs have been obtained only after repeated requests and long delay.

Furthermore, no provision is made for obtaining non-listed items needed for the management of diseases common to this area. As an example, the treatment of choice for hookworm disease is tetrachlorethylene, as outlined in "Notes on Tropical and Exotic Diseases of Naval Importance", issued from the U. S. Naval Medical School, November, 1942. None was supplied with the original medical stores and we have been cautioned not to requisition drugs not listed on the supply table or supplementary supply tables. We are beginning to encounter cases of hookworm disease from Base "Cactus". The Army medical Storehouse had only one hundred lcc. capsules of tetrachlorethylene which they loaned us. An additional supply is urgently needed for anticipated cases of hookworm infection.

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3/ (Page 27 - Annual Sanitary Report for 1942) - During the week of 7 December, twelve cases of acute peripheral neuritis occurred, which were traced to the ingestion of poisonous fish, probably spawning barracuda, which had been caught locally the day prior to being served at the Chief Petty Officers mess at Naval Base "Roses". In three instances, muscular weakness, incoordination and paresthesias of the upper and lower extremities were quite marked, requiring hospitalization. In the other nine cases, the symptoms were more mild and the patients remained ambulatory. The initial symptoms of nausea, vomiting, and abdominal cramps began a few hours after the fish was eaten and were followed by profuse watery diarrhea in the more severe cases. Since all of the cases developed simultaneously and were confined to those who ate the spawning barracuda, it is believed that a neurotoxin elaborated by this fish was the responsible agent. The treatment consisted of ounce of castor oil by mouth, with daily intramuscular injections and the oral administration of thiamin chloride. All recovered.

(Page 28 - 29 Annual Sanitary Report for 1942) - On 20 September, 1942, this hospital was commissioned and 382 patients were moved from the buildings in Vila that had been used for temporary hospital facilities. Of that number, approximately 65 percent were surgical cases. From that time, ambulance planes and ships have transported patients almost daily from Guadalcanal for treatment at this hospital.

The casualties received from the fighting front at Guadalcanal have had previous excellent first-aid care. This primary treatment played an important factor in the subsequent rehabilitation of these wounded men, who have been received at this hospital after an average elapsed time of about 38 hours from the time of injury. Commendation should be given to the Medical Officers and Hospital Corpsmen who have rendered this service at the Field Hospital.

32 The Surgical Department also receives and administers to all surgical cases referred by the various Army, Navy and Marine activities.

All casualties are classified into the following categories:

Class "A" - Convalescent expectancy of less than 90 days.

Class "B" - Psychoneurosis, War Neurosis and Situational.

Class "C" - Convalescent expectancy of over 90 days.

Class "D" - Permanently disabled for further duty in the South Pacific Area.

Casualties under Classification "A" are returned to duty as soon as practicable. Those patients classified under "B", "C" and "D" are evacuated to the U.S.S. SOLACE and the U.S.S. TRYON for further transfer and disposition. If a ship is returning directly to the United States prior to the opportunity to transfer such patients to the "SOLACE" and "TRYON", Class "D" patients are evacuated via certain specified transports.

We have been attempting to determine whether healing and lessening of disability are better served by leaving a gunshot wound open, or by making a tight closure after debridement has been made. In our experience each case must be individualized. No hard and fast rule can be made. If thorough debridement can be effected, sulfanilamide crystals are dusted into the wound and it is then closed without drainage. This has been possible in about 90 percent of all cases, and primary healing has occurred in about 80 percent of the cases so closed. We feel that these men have been returned to duty many days, even weeks, earlier because of the use of primary closure. We also feel that scar tissue, with resultant disability from adhesions, etc, has been reduced.

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The prime principles in making complete closure are thorough debridement of all necrotic tissue, and closure without undue tension. In some cases where complete closure has been impossible due to tension, we have closed as much of the wound as could be readily approximated, leaving the remainder open. We feel that this has "saved skin" in many instances.

It seems clear that when sutures are removed too soon, wound margins separate and subsequent healing occurs by granulation, defeating the original purpose of the primary closure.

(Page 31 - Annual Sanitary Report for 1942) - The treatment of burns at this activity has been based upon two factors, namely, the condition of the patient on admission and the pharmaceutical materials available.

Shock is combatted by the use of blood plasma, external heat (improvised heat cradles) and other accepted measures. Pain is relieved by the judicious use of morphine which is necessary, however, only until adequate tanning is accomplished. Approximately 100 cc. of plasma is given

intravenously for each point above 50 percent red blood cells (hematocrit determination).

As soon as we consider that the factor of shock is eliminated, the patient is taken into the operating room, anesthetized with intravenous pentothal sodium and a thorough debridement is performed, all blisters and necrotic areas being carefully excised. Over the cleaned area a fine film of sulfathiazole (microcrystals) is sprayed by means of an atomizer. This is followed by the application of water-soluble tannic acid jelly which is again sprayed with a thin film of sulfathiazole crystals. The patient is then returned to his bed and placed under a heat cradle until a tough thin tan develops over the burned area.

Thus a most satisfactory dry and flexible tan is produced which not only prevents loss of fluid but allows the patient to be free from thick and painful dressings. Subsequent local applications of sulfathiazole and tannic acid jelly are indicated at any point where the tan is permitting the escape of serum.

Chemotherapy consists of either the oral administration of sulfadiazine or sulfathiazole, 1 gram every 6 hours for ten days. Blood concentration determination of these drugs is most valuable in judging the proper dosage.

This treatment has been used with excellent results in over 40 cases of second and third-degree burns, both gasoline and flash, involving from 20 to 70 percent of the body and face. The important points to be stressed, aside from the control of shock, are the thorough debridement of all necrotic areas under intravenous anesthesia and the development of a thin, dry and flexible tan over the burned area by the use of a sulfathiazole (microcrystal) spray and water-soluble tannic acid jelly.

(Page 32 - 33 Annual Sanitary Report for 1942) - In our use of open drip ether, we have confirmed all the statements concerning its use in the tropics. Humidity is so high, the air being so saturated with moisture, that vaporization is practically impossible. The average person even adequately prepared pre-operatively, is most difficult to put to sleep. Once asleep it is difficult to keep him relaxed, requiring practically continuous drip to do so. It is most unsatisfactory for use in the tropics. Some measure of help is obtained by putting a draped lamp, with a large electric bulb, close to the mask. This facilitates the vaporization of the drug.

35 Our greatest benefactor in the realm of anesthesia as used here in the tropics has been intravenous sodium pentothal. For this hospital, it has taken the place of the various gaseous agents used in general anesthesia. We have used it in most every type of surgery including plastic repair of the eye and eyelids, craniotomies, amputations of both lower and upper extremities, as an adjunct to spinal anesthesia to alley nervousness and nausea, teeth extractions, and for any debridements from the costal margins upward including the upper extremities. It has been used in chest surgery on numerous occasions without ill effect. In cases of emergency amputation of the lower extremities, it has replaced spinal anesthesia on those patients in mild shock and in poor operative condition.

In all our cases there has been only one case with respiratory difficulty and this was easily overcome by the usual methods of resuscitation.

Briefly, our method of administration has been: (1). Adequate pre-operative preparation including nembutal, grs. III, and morphine, gr. $\frac{1}{4}$, working on the assumption that this preparation decreases the amount of the drug to be injected intravenously; (2) atropine sulphate, gr. 1/150, given

in conjunction with the morphine to decrease secretion and salivation; (3). the use of a 5 percent solution, including one ampule of coramine, to each 20 cc. of solution (1 gm. to 20 cc. equals a 5 percent solution); (4). the slow injection of the drug because of its cumulative effect; (5). limiting the duration of the anesthesia as much as possible; however, we have used it for procedures requiring nearly 2 hours without ill effect; (6). taking adequate precautions against respiratory failure by having CO₂ and O₂ and respiratory stimulants at hand.

In our use of intravenous sodium pentothal we have made the following observations and come to the following conclusions:

76
1. This agent is an excellent one for use in patients with war wounds. We have not had many abdominal cases which require relaxation, but in all other wounds it has been highly satisfactory.

2. The drug is readily available, easily mixed, non-explosive and non-inflammable. It is practical for use aboard ship and on shore stations.

3. The drug does not require a trained anesthetist, but when used cautiously is most practical and safe. All the Medical Officers at this station have administered it at sometime.

4. The drug may be used safely in chest cases, with pneumothorax hemathorax, etc., for debridement of such cases.

5. The drug may be used for surgery of the face, head, throat and neck, if adequate airway is maintained.

6. Sulfanamide drugs are not contraindicated in the use of the drug, all cases having received such drugs prior to and following anesthesia.

7. In the absence of ether, it is the drug of choice to be used in shock cases. In these cases it can be administered concurrently with the intravenous administration of glucose, plasma or blood.

8. Skin sloughs and thromboses are a rarity with the use of the 5 percent solution, only one minor thrombosis having resulted in our cases.

9. Fortunately, although all our cases have been quite ill, they have been men in the lower age group, healthy males, probably accounting in part for our good record with the use of this drug.

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37
(Page 37 - Annual Sanitary Report for 1942) - One of the chief handicaps which caused a delay in returning laboratory reports was the lack of sufficient microscopes to work efficiently. Of the 10,469 tests done by the Clinical Laboratory, 8,448 necessitated the use of a microscope. Only 2 microscopes were available for this work and these were both monocular. The microscopic lamps furnished were "Burton's Fresnel Physicians Diagnostic Lamp". These require a special 100 watt lamp, the life of which was about 1 week with the type of usage required in this laboratory. Only a few replacements were available and within a month all were burned out. It was necessary to construct microscopic lamps out of wood using a standard light globe. It is suggested that microscopic lamps using a standard light bulb be furnished. Neither of the 2 Microscopic Cases "A" sent, contained a funnel stop for darkfield examinations. It was necessary to examine all darkfield preparations with a high-dry objective rather than with oil immersion.

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(Page 40 - Annual Sanitary Report for 1942) - The original equipment of the EENT department shows a lack of planning for the assigned task. It should be pointed out that many of the tests and instruments for use in this department are highly specialized. Many of our difficulties would have been eliminated if the equipment had been checked by a specialist in this field before embarkation.

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(Page 42 - Annual Sanitary Report for 1942) - An important example is the matter of localization and removal of intraocular foreign bodies, for which no provision was made in the original equipment of this hospital. We have used a wire loop placed against the limbus as a landmark for localizations. The engineer of the USS KITTYHAWK kindly built us a small magnet and we have borrowed a motor generator from the airport. With this makeshift arrangement we have succeeded in extracting about 50 percent of the intraocular foreign bodies before serious and irreparable damage has been done. The remaining cases have been evacuated. Follow up of these cases has shown that emucleation has been done in some instances in which it might have been possible to save the eye by early extraction of metallic foreign bodies.

38
There is no equipment for refined eye examinations. Since many of the casualties suffer from minute foreign bodies embedded in the eyeball, magnification with a slit lamp would facilitate the care of these patients. With the instruments now on order, we will be set up for first class care of the eyes.

(Page 44 - Annual Sanitary Report for 1942) - The radiographic tube on the "General Electric" tilt table ceased to function on 27 September, 1942. The glass was punctured and shattered by the high voltage. No spare tube was furnished with the original commissioning outfit. For this reason, all fluoroscopic work has been interrupted. Furthermore, the replacement tube has been lost enroute. This has been a serious handicap as all work must be done with the "Fischer" mobile unit.

(Page 44 - Annual Sanitary Report for 1942) - The original commissioning outfit lacked instruments for the localization of foreign bodies and sufficient

film hangers, cassettes and screens of assorted sizes and film-viewing boxes. A spare x-ray tube should have been included with each radiographic unit.

When the original commissioning outfit was in preparation, the mission of this organization should have been kept in mind. It should have been realized that many metallic foreign bodies in the eye and other tissues would inevitably be encountered and require radiographic localization. This fact is substantiated by the statistical report of 40 localizations in approximately three months. However, no localization instruments were provided. An equally serious omission was the failure to provide any type of eye magnet. Furthermore, since "-- it is the general policy of the Navy Department not to procure and furnish non-listed items other than those furnished in the commissioning outfits", the problem of correcting this and many other obvious defects becomes insurmountable.

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(Page 46 - Annual Sanitary Report for 1942) - All patients are admitted through the receiving ward, where casualties are sorted. Patients in shock are given routine shock therapy. All others are sent to the wards via the x-ray department. As soon as possible after shock therapy, all compound fractures have been debrided and a modified Orr treatment carried out. All casualties with open wounds are put on routine sulfathiazol therapy by mouth, with sulfanilamide crystals locally in the wounds. All fractures, except those of the femur, after debridement and local chemotherapy, are packed with vaseline gauze and immobilized with plaster circular casts, applied after swelling and serum exudation has subsided. Fractured femurs have been treated by debridement, vaseline pack, and balanced skeletal traction, until sufficient callus has been formed to make plaster fixation safe.

In no instance, has a gas bacillus infection developed in the debrided wounds, except when gross infection was present at the time of the debridement. No wounds in fracture cases have been closed. Twenty-one cases of gas bacillus infection have been encountered, with 4 deaths. All cases have been given large doses of serum and sulfathiazole. X-ray therapy has not been available. No deaths occurred as a result of shock or suppuration in this series of compound fractures. Deaths which have occurred have been the result of gas bacillus infection, associated with visceral wounds, and one case of amuria as a result of a crash injury (not due to shock). Anesthetics used have been sodium pentothal (102), spinal (79), local (25) and ethyl chloride (4). Sodium pentothal has been found to be the best available anesthetic agent adapted for almost any type of procedure.

41 (Page 47 - Annual Sanitary Report for 1942) - The supply of metrazol has been inadequate. Shock therapy is of infinite value in an advanced base hospital such as this. It makes the handling of psychotic evacuees easier by reducing the intensity of their symptoms or rendering them symptom-free. Its early use prevents fixation of the psychosis.

(Page 49 - Annual Sanitary Report for 1942) - Among malarialogists it has long been known that this island is intensely infested with malaria. This fact was stressed in the report of the Surgeon General, U. S. Army, 19 March, 1942, "Summary of Health Data on 'Roses', with Special Sanitary Precautions for American Troops Going to that Island". The failure to provide adequate supplies of quinine or atabrine for chemoprophylaxis or therapy is evident. A supply of 4800 5-grain tablets of quinine dihydrochloride was purchased from a local insurance company and additional antimalarials were requested by dispatch. The only supply received, arriving a month later and sent by air from a nearby base, was one of 96,000 5

grain quinine tablets. The estimated needs for chemoprophylaxis and therapy for the hospital unit alone per month, using 5-grain quinine sulfate tablets would be 36,000 tablets for chemoprophylaxis and an additional estimated requirement for therapy of 20,000 tablets. This estimate makes no allowance for the personnel of the Construction Corps and the Army personnel, who were without antimalarial drugs. The situation presented insuperable difficulties.

41 (Page 9 - Annual Sanitary Report for 1942) - During the period from 1 April to 31 December, 1942, there have been 2,949 admissions for malaria at this hospital and in small scattered field hospitals at Base "Roses". Of these 2,038 were original admissions, while 911 patients were readmitted from 1 to 6 times for malaria (627 first readmissions and 284 other readmissions). There has been but one death from malaria among the American forces of this island. Approximately 1 out of every 4 persons attached to the American forces at Base "Roses" (the entire island) has acquired this disease since the occupation of this island. The number of man-days lost from duty, the continued loss of efficiency in a high proportion of cases, and the deleterious effect on morale can hardly be estimated. The facts speak for themselves. The excellent medical care these patients have received is reflected in the exceptionally low death rate.

By continuous suppressive treatment (atabrine or quinine "Chemoprophylaxis") of personnel in infested areas, and periodic short courses of atabrine therapy, following discharge of malaria patients from the hospital, the number of relapses or reinfections has been kept at a moderate figure.

There have been only 2 cases of cerebral malaria and 1 of blackwater fever. These patients responded to vigorous therapy. In explanation of this low incidence of either of these frequently fatal complications, it may be stated that everyone on the island is "malaria conscious".

Consequently patients are usually brought to the hospital immediately after the first symptoms develop. Laboratory confirmation by thick-film techniques is regarded as an emergency measure. Blood films are made on all patients immediately after entrance to the hospital. All patients admitted to this hospital for any cause are assumed to have malaria until it is disproved. Because of the extraordinary ability of malaria to mimic other diseases, malaria has replaced syphilis as "the great imitator" in this area.

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42
(Page 9 - Annual Sanitary Report for 1943) - Malaria remained the chief disease of epidemiological importance. During 1943 a total of 3050 cases of malaria were admitted or readmitted to this hospital in contrast to 2949 during the period from 1 April 1942 to 31 December 1942. Of the 3050 cases, 931 originated on this base and 531 of these cases were first admissions. There were 2119 cases admitted from other bases, the majority of these were from "Cactus". Plasmodium falciparum has shown a steady decline during the year with only an occasional case being admitted. All cases being admitted, both from this base and other bases, have proven to be Plasmodium vivax, at present.

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(Page 10 - Annual Sanitary Report for 1943) - Flush type water closets were installed during the year, replacing the old chemical tanks, this alone will eliminate the possible dangers of flyborne diseases. A shortage of wire screening exists and at times it is impossible to replace worn and rusted screens.

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(Page 33 - Annual Sanitary Report for 1943) - In general, patients with chest wounds received at this hospital were treated conservatively. This meant absolute bed rest, chemotherapy and nonoperative interference. Debridement and closure of wound was delayed up to 14 days in some instances. Complete medical and radiological control was available and thoroughly utilized. As a result of this practice patients were evacuated for further disposition with little disability, were afebrile, with closed wounds, and without a single case of empyema.

43 Patients received with sucking wounds were treated as emergencies. Measures for controlling shock were instituted and the patients were prepared for surgery after X-Ray of the chest had been taken. Debridement of the wound was performed and the wound closed, if possible. If closure was not possible the sucking wound was packed with vaseline gauze.

By the time these casualties had arrived, hemorrhage had usually ceased and the patient was rarely in shock. If the wound had produced open pneumothorax, debridement was done, the foreign body was removed, if possible, and the wound was closed in layers without drainage. In perforating wounds where fragments of fractured ribs were driven into the pleural cavity or lung, but the wound was not of the sucking variety, surgical treatment was delayed until the patient was in good condition. Later, removal of the rib fragments with secondary closure of the wound was performed. X-ray localization of the foreign body was essential before operation was done for the removal of the foreign body from the lung. The great majority of the patients with perforating wounds recovered without operation.

Aspiration was performed in the following instances: (1) hemothorax filling the entire pleural cavity on one side, (2) severe respiratory

pain; (3) cyanosis; (4) dyspnoea, and (5) mediastinal shift. If, however, fever and accelerated pulse did not subside but tended to increase, aspiration was performed for the bacteriological examinations.

All patients with chest wounds were given large doses of sulfathiazole for the first week after admission, with smaller doses the following week until the temperature remained normal.

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(Page 33 & 34 - Annual Sanitary Report for 1943) - The treatment of compound fractures of the skull at this facility necessitated some variation from that generally employed in civil practice. Practically, all of these lesions had been sustained from 12 to 48 hours prior to admission here. Almost every wound of this type had been treated shortly after it was incurred by the local application of a sulfonamide drug. An occasional wound had been debrided and closed, but usually the wounds were open, with some herniating cortex tissue presenting.

At first, some hesitation was felt in operating upon wounds of over thirty-six hour's duration; they were treated by the local application of sulfanilamide crystals, sulfadiazine given orally, and repeated spinal punctures. Because of the nature of some of the wounds, however, it was necessary to debride them thoroughly, and the following routine was adopted in the care of patients with compound skull fracture.

When the patient was admitted to the ward his general condition was appraised. If it was satisfactory, the wounds were dressed, and a decision was made regarding immediate or delayed roentgenologic studies. Sulfanilamide crystals were usually applied to the wound at the time of the initial dressing and usually a wide area about the wound was shaved and cleansed with ether. Gauze dressings were applied and held in

place by the stockinette type of dressing. A piece of stockinette 6 inches wide and about 14 inches long was used, a crescentic piece being cut out near one end, large enough to make an opening for the face. The stockinette was then slid over the head with the narrow strip at the bottom serving as a chin strap. The open end at the top was then drawn together with adhesive or a safety pin. The patient was immediately started on a course of sulfadiazine therapy, with an initial dose of 30 grains, followed by 15 grains every four hours. Also, the patient was given at least 3,000 c.c. of fluids each twenty-four hours while taking sulfadiazine. This regime was followed for at least twenty-four hours before any operative treatment was instituted (except in an emergency).

45 → If the patient was comatose, a small tube was passed through the nose into the stomach, and fluids and medications were given by that route. Barbiturates (nembutal, sodium amytal and phenobarbital) were utilized for the control of restlessness. Aspirin and its compounds, with or without codeine, was used for control of pain. Occasionally, morphine, in 1/12 grain doses was given for the uncontrolled restlessness and hyperventilation.

Following a study of the X-ray films in the stereoscope, the type of operative procedure to be employed was determined. A detailed description of the operative technique is not in order.

Suffice it to say, that with local anaesthesia (1 percent procaine) or local anaesthesia combined with pentothal sodium given intravenously, a debridement of the wound, including scalp, skull, dura and cortex (if lacerated) was carried out. Conservatism was necessitated by the lack of hemostatic equipment (silver clips and electrosurgical unit).

Hemostasis was obtained by the use of hot saline packs, suction, and muscle clamps. Sulfanilamide crystals were placed in the cortical wounds and in the more superficial areas. In view of the duration of the wounds, it was felt that sliding in the dura to cover defects might break down protective barriers. The dura was therefore frequently left open. The scalp was closed when at all possible, silk being used when it was available. Sulfadiazine therapy was employed routinely, beginning immediately after operation and continued for a variable period of time. Spinal punctures were done on some patients, although not as a routine procedure. Patients who were not evacuated were kept in bed for from ten to twenty-one days.

46
The absence of meningitis in all of the patients treated here for a compound fracture of the skull has been most encouraging. In spite of grossly contaminated cerebral wounds, the delay in debridement due to transportation from the front, and probable incomplete removal of damaged cortex because of inadequate hemostatic equipment, no meningeal infection was present. It is considered that this fortunate situation can be attributed to the early use of sulfonamide drugs orally and locally, pre and post-operative sulfadiazine therapy, adequate removal of contaminated tissue, and a relatively high fluid intake.

(Page 50 & 51 - Annual Sanitary Report for 1943) - From 1 January 1943 to 1 January 1944, the Psychiatric Department admitted 1074 patients, of this number 97 were restored to duty and 977 were evacuated to hospitals in the rear area for further treatment and disposition.

The etiological factors involved fall into two main categories, fundamental causes and precipitating causes. The former were those common to the neurosis and psychosis of civil life, while the later were the local environmental factors which precipitated the development of a psychoneurosis

or psychosis.

Under the fundamental causes must be listed primarily a fear of death. A corollary of this is fear of pain. In commissioned and non-commissioned officer, the increased responsibility and feeling of solicitude for their men play a part.

The precipitating causes were principally fatigue, lack of sleep over long periods of time, disturbed sleep, inadequate food and drink, unusual enemy tactics, noise, and blast concussion.

Metrazol when available, was used with satisfactory effect, reducing the intensity of psychotic symptoms and in many cases rendering the patient symptom-free.

Hypnotics in the form of nembutal and sodium amytal were used.

47
The supply of metrazol has been inadequate, some insulin has been used as a substitute. The early use of metrazol prevents fixation of the psychosis.

An adequate supply of metrazol is recommended.

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(Page 55 - Annual Sanitary Report for 1943) - The morale of the hospital corpsmen has been fairly high. The morale of the other ratings has not been so high since all members of the Hospital Corps who arrived with them have been returned to the United States, while they are still on the station after twenty one months. Replacement of this group at an early date will do much to raise the morale.

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(Page 64 - 65 - Annual Sanitary Report for 1943) - All wounds had been dusted with sulfanilamide in the field and most of the patients had received sulfathiazole by mouth, although because of battle conditions this was

irregular and interrupted. All fractures were received well-splinted.

Thirty-four cases, or 94% of the total number, had an infection on admission or developed suggestive signs before debridement could be done. One patient developed gas bacillus infection after a debridement which was known to be incomplete, but which could not be completed because of massive thigh wounds and shock. Gas bacillus infection did not occur in any case in which thorough debridement was done.

Five deaths occurred in this group of thirty-six, giving a mortality rate of 13.9 percent.

Since patients were received 12 to 48 hours after injury, prophylactic serum was not administered.

48
Suspected cases and frank clinical cases received large therapeutic doses of gas gangrene combined antitoxin. Immediate and thorough debridement was carried out on cases in which gangrene was not present. Amputation was performed at once on all cases of gas bacillus infection with thrombosis of the artery and gangrene. All wounds were dusted with sulfanilamide crystals and packed with vaseline gauze.

It was necessary to amputate in fourteen of these cases and to reamputate in four cases. Amputation stumps were left open. Oral sulfathiazole therapy was carried out, and plasma, blood transfusions, or fluids were given intravenously as indicated. In five cases, X-ray therapy was employed using a small portable diagnostic machine with a dosage estimated to deliver 75r.

Because in all cases sulfanamides and combined antitoxin serum were used, the individual efficiency of either agent cannot be evaluated. X-ray therapy was used empirically. Sulfanilamide crystals in the wounds,

sulfathiazole by mouth, and adequate splinting, combined with thorough debridement, appear to have lessened the factor which favored the development of gas bacillus infections.

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(Page 65 - Annual Sanitary Report for 1943) - (a) The incidence of filariasis in the natives of this island is fairly high according to reports from the local French Hospital. Numerous thick blood films containing stained microfilaria bancrofti have been sent to this hospital and verified.

This island is not listed as being an endemic area for this disease. All cases which have developed in the U. S. Military personnel on this island have spent some time on other islands which were considered endemic.

49
A thorough check was done on this disease with emphasis placed on length of time from original infection to appearance of first clinical symptoms and minimum and maximum length of time necessary before microfilarias may be found in the blood stream.

(b) The strain of Plasmodium vivax encountered in this area seems to be more resistant to the routine treatment than the same species encountered in other parts of the world.

The initial quinine-atabrine therapy seems just as effective in the acute stages, usually aborting the paroxysms in the first 48 hours, but 80% of these cases relapse in from 6 weeks to 3 months without fail. Is this species naturally more resistant or has it acquired a tolerance for the anti-malarial drugs used, due to long periods of suppressive treatment?

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V. C-O-N-C-L-U-S-I-O-N

This hospital was the first Base Hospital to be established in the South Pacific Area.

Battle casualties were received by aeroplane ambulance from the combat area from the beginning of the Guadalcañal landing on August 7, 1942 until September, 1943, when the last aeroplane ambulance containing eight casualties from the forward area arrived. After September 1943 casualties from the forward area by-passed this hospital for other hospitals further South.

50 The U. S. Army's 48th Station Hospital of 500 bed capacity, which was stationed on Efate was decommissioned on December 19, 1943, and moved to another base, leaving this hospital to care for all the personnel remaining on Efate and all fleet activities in this area.

This hospital was never subjected to enemy fire or bombings.

The staff was overworked during the period in which battle casualties were received daily. At all other times, its complement was adequate.

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It is considered that Base Hospital # 2 did an admirable job throughout the war.

Its work on Efate in the treatment and control of malaria alone justified all the planning and financial expenditure involved, and its work in handling the casualties of the Soloman campaign was obviously invaluable.

The second phase of this hospital, during which it was rolled up and sent to Noumea for staging was necessary a quiescent period, but splendid work was done.

The fruit of this work was never realized, as the third phase of the hospital, in which it would have given medical support to the assault on Japan, was made unnecessary by the surrender of the enemy.

Much of the equipment and supplies of this hospital will continue to serve a useful purpose during peacetime as it has been installed and is now in use at the U. S. Naval Dispensary, at the Naval Base at Subic Bay in the Philippines.

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NOTE - Further and more detailed historical data on Base Hospital # 2, including photographs, can be found by reference to the U. S. Naval Medical Bulletin of November 1943 - Pages 1513 to 1654.