CONDITIONS EXPERIENCED AS A JAPANESE PRISONER OF WAR FROM A MEDICAL POINT OF VIEW.

BY

Captain A. J. N. WARRACK.

Royal Army Medical Corps.

[Written September 5, 1945.]

NORTH POINT CAMP, HONG KONG, JANUARY TO APRIL, 1942.

NORTH Point Camp was situated on the Island of Hong Kong, about two miles to the East of Lyeman Gap on the water front.

The Camp consisted of a number of wooden huts originally built for the housing of Chinese internees.

The Japanese landing on Hong Kong Island occurred in this area and, as a result, the huts and other buildings were considerably damaged by shell fire.

The whole of the "Stanley" garrison was, in January, living in the Camp, consisting of about 3,000 British, Canadian and Indian troops.

Sanitary conditions were unbelievably bad. During the fighting in Hong Kong, it appeared that the area had been used as a rubbish dump first by the British and later by the Japanese who had also stabled horses in the Camp.

A mass of rubbish, six feet high and covering an area of several hundred square feet, was deposited outside the Camp. The whole area was thick with flies, whilst the latrines and wash-houses were still choked with faeces in spite of continuous cleaning operations.

Water was being drawn from a stream a short distance from the Camp.

Living accommodation was primitive, the men being crowded into huts already damaged by shell fire.

These huts, designed to accommodate thirty or forty men, were in several cases occupied by as many as a hundred and twenty.

For the first three weeks the diet was good, permission being granted by the Japanese for parties to collect food from R.A.S.C. dumps on the Island. At the end of this period, however, supplies ran short, partly due to the fact that the Japanese ordered the removal of all stocks in Camp. The diet then consisted of rice, vegetables and fish. Quantities were adequate but skill in the preparation of Oriental food had not, in those early days, been achieved.

A fair quantity of medical supplies were found in the camp, whilst, during the first few weeks, it was permitted to take seriously ill cases to the British Military Hospital, where urgently needed drugs could still be obtained.

Efforts were made to combat the latrine and fly problem. The camp was eventually put into a state of comparative cleanliness and attempts made at the control of flies by killing and trapping. Gauze cone type fly traps were constructed from odd materials available. These were a great success, flies being caught in them and measured, when killed, literally by the pint.
It was found impossible to fly-proof the huts owing to lack of material and to the severe damage sustained during the fighting. Difficulties were also encountered in the fly problem by the fact that it was not possible at first to send working parties to clear the rubbish outside the camp area.

Towards the end of January, the British troops were transferred to another camp and were replaced by personnel of the Royal Navy and the remaining Canadian Units in Hong Kong.

The commonest sickness seen by the writer at this camp was dysentery. Diarrhoea was practically endemic.

For the first two or three weeks it was possible to send severe cases to hospital but, after this time, orders were received from the Japanese that a hospital must be formed in the camp.

A small warehouse in the area was taken over, and the dysentery cases treated in this.

The treatment of dysentery was hampered by the lack of nursing facilities and by overcrowding. The hospital was made to accommodate about forty men lying side by side on improvised beds. Little could be done in the way of special diet.

No diagnostic facilities were available but the majority of cases appeared to be of a bacillary nature.

The onset was sudden, consisting of a feeling of malaise accompanied by rigors and hyperpyrexia, the temperature rising to over 103°F. Diarrhoea commenced about six hours later and was accompanied in many cases by severe vomiting and collapse. The stools, often as many as thirty or forty a day, consisted of pure blood and mucous.

No deaths occurred in the camp during the writer's stay, but it is recorded that two severe cases evacuated to British Military Hospital died there.

The following drugs were available for treatment: Magnesium sulphate in fair quantity; Sulfapyridine—about 500 tablets; Sulfanilamide—about 3,000 tablets.

Mild cases were treated with two hourly doses of magnesium sulphate until the stools became clear of blood. This usually occurred by the third or fourth day, the patient being then discharged to make room for more serious cases. Few relapses occurred and the results were considered good.

Severe cases were given from four to six grammes of sulfapyridine. The effects of this drug were in most cases dramatic, the stools often becoming firm and clear of blood in twenty-four hours and the patient apparently cured in forty-eight hours.

By February, 1942, the supplies of magnesium sulphate and sulfapyridine were exhausted and all cases were treated with sulfanilamide. The results were surprisingly good, most cases recovering in two or three days.

Those cases which did not seem amenable to treatment and which passed foul smelling stools of a bloody feculent nature were thought to be amebic in nature. A small quantity of emetine hydrochloride and emetine bismuth iodide was available and given as a therapeutic test. The results of treatment...
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appeared satisfactory although it was not possible to give a full course of the drug.

The writer did not remain at the camp long enough to assess the relapse rate of these cases.

No other serious illnesses were seen at this camp by the writer, but it is reported that beri-beri and diphtheria became a serious problem in the camp during the summer of 1942.

General treatment by the Japanese was fairly good during these first three months. There appeared to be little interference with individuals. Sanitary conditions and overcrowding were the worst features of the camp, whilst the low vitamin diet suggested that deficiency diseases would become common in a short time.

At the time of the writer's transfer to another camp a few cases of beri-beri had already been diagnosed.

From the point of view of living conditions, this was the worst camp seen by the writer. From a medical point of view, however, a fair quantity of drugs were available and very serious cases could be evacuated to hospital.

The writer saw no instances of ill-treatment at this camp, the Japanese being guilty of neglect rather than actual misuse of prisoners.

ARGYRE STREET CAMP, APRIL, 1942 TO APRIL, 1944

Argyle Street Camp was situated on the mainland of Hong Kong, about a mile from Kai Tak Airport.

It consisted of a number of wooden huts originally built for the housing of Chinese internees.

There was little fighting in this area during the hostilities in Hong Kong and the camp sustained no damage. Sanitary and living conditions were fairly good, the only drawback being that of overcrowding for the first six months. The average number of men in a hut was forty, but as similar huts in North Point had accommodated a hundred and twenty, there was no real cause for complaint.

Latrines were of the Asiatic type, but were flushed by running water. Shower baths and ablution benches were in good order.

The Camp housed between 500 and 600 officers and 100 other ranks as cooks and batmen. The numbers were gradually reduced during 1942 and 1943 by drafts for Japan to about 450.

In April, 1942, the Camp was organized as an Officer's P.O.W. Camp.

All senior officers were transferred in August, 1943.

The diet at this camp was poor. The principal foodstuff eaten was white rice, the quantity varying during the two years of the writer's stay from about 700 to 375 grammes a day. The latter figure was that issued at the time the writer left the camp in April, 1944.

During the first year, bread was baked daily in addition, the quantity being in the region of about 200 grammes.

Meat was available for the first few months of 1942 only.
Green vegetables, occasionally potatoes, Japanese radishes (daikons) and other root vegetables were issued in a quantity sufficient to supply vegetable soup with the rice twice daily. On many occasions, the vegetables consisted of such things as potato or chrysanthemum tops.

In addition to the above, peanut oil was issued fairly regularly.

Fish, sufficient to supply each man with a ration every ten days, was also included in the diet.

Every effort was made to preserve the vitamin content of the food in cooking. Vegetables were cooked for a short period only, whilst, in spite of complaints from many personnel, the practice of frying food was discouraged. It was submitted by the medical officers in the camp that the fish was better distributed to many men in small quantities than that each man should be given a large and probably indigestible ration at long intervals. Medical recommendations were all made in an effort to control the amount of deficiency disease in the Camp.

In many cases the suggestions made were unpalatable, but were accepted and adhered to by the messing officer. There was no interference by the Japanese with the method of preparation of the food. This was a great advantage compared with the prison camps in Japan where complete control of messing was exercised by the Japanese.

The caloric value of the diet was at one period (June, 1942) as low as 1,400 per day, and seldom exceeded 2,000. The latter figure takes into account canteen purchases and Red Cross issues.

In June and July, 1942, the Camp was under punishment owing to officers having escaped and no bread and no canteen were permitted. The caloric value of the diet at this time was about 1,400, calculated on weight of uncooked food.

Officers were paid according to rank and were allowed to purchase extra foodstuffs and necessaries from the canteen. During 1942 the prices were reasonable and the diet could be supplemented to a fair extent. In 1943, however, prices became exorbitant and it became increasingly difficult to augment the diet to any extent. It is considered, however, that, without the canteen, malnutrition would have been much more severe than it was and that the spending of the Japanese pay on foodstuffs was absolutely necessary for the preservation of health.

In addition to the purchase of foodstuffs, money was sent regularly to the other ranks camp at Shamshuipo where malnutrition was severe.

Red Cross parcels to the scale of one per man were received in November, 1942, together with some bulk supplies of M. & V. ration, atta, ghi and cocoa. The latter were used to supplement the diet and lasted until about April, 1943. Further Red Cross parcels to the scale of one to five men were received in April, 1943. No other Red Cross supplies were received in the Camp up to April, 1944, when the writer left.

That the Red Cross food was instrumental in preserving the Camp at a very critical time was indicated by the sudden fall in the figures of malnutrition at
this period. The number of cases reporting sick showed a steady increase again after April, 1943.

A medical committee from the 12 M.O.s in the camp was organized. This committee received reports on the state of the camp health from M.O.s in charge of personnel and hospital, and made recommendations and suggestions to the administrative authorities.

The organization of the Camp differed from that of camps in Japan in that there was little or no interference by the Japanese with internal administration. This was a great advantage from every point of view as the writer came to realize on arrival in Japan.

During the first five months of the Camp's existence the Japanese refused to provide facilities for a camp hospital. During this time the sick were treated in their own huts. This was a great hardship, especially in the case of men with dysentery. On rare occasions a seriously ill patient was transferred to British Military Hospital, but in the majority of cases requests for transfer to hospital were ignored.

No officer or man died in the camp during the period April, 1942 to April, 1943, but four officers died after removal to hospital.

In the writer's opinion at least two of the deaths could have been avoided by immediate removal as requested.

One case was that of fulminating dysentery, transfer delayed twenty-four hours, and one that of obstruction of the bowel, transfer delayed twenty-four hours.

The other two deaths were registered as (a) cirrhosis of the liver and (b) carcinoma of the stomach.

Although the death of the latter cases were inevitable, it may be noted that removal was delayed for over two months in each case, and the patients might have been spared much misery by civilized hospital nursing.

In October, 1942, an outbreak of acute gastro-enteritis occurred in the camp and appeared to be due to fish poisoning.

Four cases showed symptoms of a cholic nature and the diagnosis of cholera was made by the Japanese by bacteriological methods. This outbreak disturbed them sufficiently to open a camp hospital. The equipment issued for this hospital was primitive but beds and other essentials were obtained in the course of time. There were no deaths as a result of the "cholera" outbreak, and no further cases occurred.

A small quantity of medicine, totally inadequate to the needs of the camp, were issued by the Japanese monthly. No drugs were issued in the months July, August, September, 1942. Medicines issued consisted of such things as iodine, aspirin, magnesium sulphate, sodium bicarbonate, a small quantity of sulfanilamide or sulfapyridine, and a small quantity of vitamin B. The latter was usually sufficient to treat about 10 per cent of the sick needing it.

Medical supplies were supplemented by bribing guards to buy them in the town and by their being sent in parcels. This latter source of supply was eventually stopped by the Japanese. A large proportion of the money paid to officers was used for the purchase of necessary medicines. In this respect
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the camp owes a great debt to Dr. Selwyn Clarke, Director of Medical Services, Hong Kong, who was able to send to the camp many valuable drugs in the year 1942.

The transfer of acute surgical cases to hospital was invariably refused. An operation room, however, had been fitted up in the Indian Soldiers Prison Camp about half a mile away and operations were carried out there. Patients were transported to and from the operating room by stretcher; the Surgeon, Assistant and Anaesthetist acted as stretcher bearers. The Surgeon stated that his surgical technique was hardly improved by his having to undertake the preliminary carriage of the patient. About four perforated peptic ulcers and a similar number of appendicectomies were performed under these conditions. All the patients made an uneventful recovery. In the case of one officer with a perforated ulcer, transfer even to the operation room was refused and the procedure carried out successfully in the camp dental room instead.

After October, 1942, it was possible to treat serious medical conditions in the camp hospital.

The Japanese medical officer paid periodic visits to the camp, generally at about six weekly intervals, for the purpose of selecting cases for transfer to British Military Hospital. He seldom proceeded farther than the main gate, however, where he would state that perhaps four cases out of the seven suggested to him might go.

This officer seldom examined a case personally and, in the case of a sick medical officer, his refusal to allow transfer to hospital was immediate and firm. It is considered that Lieutenant (later Captain) Saito did little to alleviate the conditions of health at this camp and that his attitude to sick men was that of complete indifference to their well-being. No opportunity was given to assess his skill as a medical officer, as he avoided at all times any contact with the sick.

Summary of Diseases seen at Argyle Street Camp.

**Dysentery and Diseases of the Bowel.**—Dysentery, both amoebic and bacillary, was fairly common during the first few months. Sporadic outbreaks of gastro-enteritis also occurred from time to time and were traceable to dietetic causes. Two or three cases of enteric were suspected. Four cases of cholera were suspected and diagnosed as such by Japanese bacteriological methods: One death from dysentery occurred after removal to hospital.

Dysentery cases were treated by the administration of sulfapyridine or sulfanilamide. Owing to the shortage of supplies the average quantity given per case was about 4 grammes over a period of two or three days. Symptoms were controlled in twenty-four hours, but the lack of further treatment probably resulted in many carriers of the disease being released in the camp.

The fact that sporadic cases constantly occurred in a reasonably hygienic camp was no doubt due to this reason.

A few cases of amoebic dysentery were diagnosed on clinical grounds. A supply of emetine bismuth iodide was available and fairly adequate treatment given.
DIPHTHERIA.—There was a small outbreak of diphtheria in late 1942. About four mild cases occurred. There had already been serious outbreaks of the disease at Shamshuipo and North Point Camps and a supply of antitoxin was available. The Japanese investigated the outbreak, sprayed everyone with carbolic, issued orders about the wearing of face masks and isolated contacts and carriers. No complications nor deaths occurred.

TROPICAL ULCER.—It was noticed that during the summer months prisoners who sustained slight cuts or scratches on the leg showed a marked resistance to healing. In the case of many the injured area became acutely inflamed, a small vesicle formed at the site and later broke down into a spreading indolent ulcer.

These ulcers were very resistant to treatment. They consisted of a necrotic base with irregular edges. The surrounding tissues were friable and unhealthy in appearance. In a few cases there was a tendency to spread round the leg. No loss of limb or permanent damage resulted however. It was thought that this condition was in the nature of "tropical ulcer," and that lack of some vitamins, possibly B and C, was a contributory factor.

In one case the possibility of diphtheritic infection was suspected as the patient had been diagnosed a carrier by the Japanese.

Treatment consisted in what local applications were available. Cases seemed to do best with local sulfanilamide powder and also with the application of a solution of Japanese neoarsphenamine. The latter was not tried intravenously owing to shortage of supplies and lack of adequate facilities for sterilizing or distilling water.

MALARIA.—Few cases of fresh malarial infection occurred in the camp, but a large number of chronic cases who had become infected previous to captivity were treated. Supplies of atabrin and plasmoquin were scanty, whilst quinine was not abundant. It was found possible to give only a very small percentage of cases an adequate course of treatment. Of necessity, the majority of cases were given only enough quinine to control the symptoms. Relapses were frequent but by April, 1944, very few cases were occurring, the disease apparently having become quiescent or cured in most cases.

MALNUTRITION.—During the years 1942-1944, the prisoners at this camp appeared to be living on the verge of deficiency disease. A large percentage of those in the camp actually reported sick with symptoms, but only a small percentage progressed to serious illness. This was, in part, due to the fact that all prisoners were encouraged to report sick at once if they suspected beri-beri or pellagra.

Supplies of thiamine and nicotinic acid presented by the Japanese were negligible but these were augmented by bribing guards. A supply of thiamine powder was obtained from outside early in 1942; this was made up as needed into a solution for injection. A small quantity was still available when the writer left in 1944. Much was to be desired in the method of sterilization of this drug, but no infection, abscesses or other ill-effects were seen.

ÖDEMA (BERI-BERI).—The majority of cases reported with öedema of the ankles. No cases of severe scrotal öedema or ascites were seen.
Treatment consisted of about 10 milligrammes of thiamine (3,300 units) by intramuscular injection on alternate days. The average number of injections was three. Diuresis usually occurred after the second injection and most cases showed no signs of oedema after three injections.

The rapid response of these cases to treatment is considered due to the fact that they were seen early. Cases seen later in Japan were nearly all of a chronic nature and required much larger doses of thiamine for longer periods. With regard to dosage, it must be noted that it could not be assessed with accuracy, as the scales used for weighing out the drug were not of the best.

**Neuritis (Beri-Beri).**—A few cases of painful feet, peripheral neuritis and arterial spasm were treated. Similar doses of thiamine were given but for longer periods. Results of treatment were good. One case was seen in which the patient complained of girdle pains followed by numbness of the legs and paralysis. He appeared to have signs of an upper motor neurone lesion and was very resistant to treatment. He was eventually sent to hospital and his subsequent progress is unknown.

**Pellagra.**—Several cases of classical pellagra were seen. Patients first complained of a sore tongue followed by scrotal eczema and the appearance of a dry scaly rash. No dementia occurred.

The only drug available was Japanese Nicotinic Acid (Apellagra) obtained by bribing the guards. No official supplies of this were ever obtained. It was found that the best results were obtained by making up a solution and giving 25 milligrammes by intramuscular injection. The procedure was painful but effective. Three injections resulted in a cure in most cases. The drug by mouth necessitated large dosage to be effective. It is thought that this preparation was not pure nicotinic acid.

The usual effects of the drug, namely abdominal pain and hot flushes, were experienced by most of the patients.

**Ariboflavinosis.**—A large number of suspected ariboflavinosis cases were seen. Patients woke up in the morning complaining of a sore tongue. On examination a small ulcer was sometimes detected on the tip or sides. In the course of two or three hours the surface of the tongue became acutely painful and the epithelium peeled off leaving a bright red strip about one centimetre wide down the centre of the tongue. The mucous glands and papillae appeared engorged. By the evening the patient also began to complain of an aching pain in the throat with difficulty in talking and swallowing.

Examination at this time would show the tongue to be completely stripped of its mucous membrane, whilst the lymphoid follicles on the posterior pharyngeal wall were very red and enlarged. Patients also showed a fair degree of conjunctivitis and rhagades at the corner of the mouth by the second day.

A small quantity of milk, tomatoes and eggs were sometimes available for the treatment of sick. These, together with thiamine and nicotinic acid, were given. Progress was rapid, most cases showing improvement in two or three days. A large percentage, however, whilst showing an improvement in the acute pharyngeal condition continued to complain of a sore tongue. On examination, the organ had an appearance similar to that in sprue. Scrotal
eczema, accompanied by the loss of a serous exudate, was also a common feature. An attempt was made to obtain some idea of the aetiology of these cases by treating some with nicotinic acid and some with thiamine. The results were inconclusive, but it seemed that the chronic cases showed a marked improvement when given thiamine, whilst acute symptoms seemed to be improved with nicotinic acid. The best results seen were when the drugs were combined with tomatoes, eggs and marmite, a small quantity of which had been purchased through the canteen. It should be noted that all supplies of marmite were turned over to the medical staff as a medicine.

A large number of cases of the above type were seen and treated (including the writer himself). Results of treatment, although impossible to assess with scientific accuracy, seemed to indicate that multiple vitamin therapy was the best treatment, and that the lack of a particular complex made its appearance at different stages of the disease. The possibility of some linkage and interdependence of the vitamins might be considered.

Very few of such cases were seen by the writer later in Japan, where supplies of riboflavin were available, but the indications were that lack of this complex played a large but not complete part in the symptomatology.

DISEASES OF THE EYE.—Towards the end of 1942, it became evident that prisoners were suffering from poor vision as the result of malnutrition. An eye clinic was organized.

Examination of cases indicated that the condition was a retinitis. Symptoms were those of failing distant vision and an inability to see the complete word on the printed page. Examination of cases demonstrated a reduced visual field with scotomata for red in particular at first. The retina was hyperaemic and the discs pale. Signs of optic atrophy were seen in a few cases.

Treatment consisted in general vitamin therapy, it being found that thiamine arrested the progress of the disease and in many cases caused a marked improvement. These cases of defective vision formed the largest and most serious group of the diseases encountered at Argyle Street. At the time of the writer's departure in 1944 about 25 per cent of the personnel had a more or less severe degree of retinitis. Frequent appeals to the Japanese for medicines and a better diet were ignored.

GENERAL REMARKS.—The general standard of health and treatment at Argyle Street Camp was better than in Japan or at other camps in Hong Kong. The diet was poor, however, and medical arrangements not unsatisfactory. In 1944, the average health of the prisoners was fair except for the presence of retinitis in about 25 per cent. The whole camp, however, was on the verge of beri-beri and pellagra, there being a constant turn over of cases reporting sick. The situation was never entirely under control but was greatly alleviated by the fact that a small quantity of eggs was obtainable from the camp farm for the sick, and by the unselfishness shown by third nationals in Hong Kong, who made great sacrifices to send weekly food parcels into the camp.
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From a medical point of view the most interesting aspect of the conditions seen was the early symptomatology and results of treatment of deficiency disease. It must be noted that little in the way of hard physical work was done by the prisoners except for camp details. This was no doubt an important factor in the fairly satisfactory health conditions compared to other camps.

In this respect it was clear that those officers who took reasonable exercise enjoyed the best health. Those who spent most of their time in bed and also those who did too much in the way of physical work seemed to show symptoms of beri-beri more frequently. It appeared evident that a reasonable amount of exercise was necessary to metabolize the food and absorb what little vitamins it contained.

It was also noted that an increase in the intake of white rice, without a corresponding rise in the consumption of more vitamin-containing foods, resulted in symptoms of beri-beri becoming evident. A happy medium both in diet and work seemed the best solution to the problem and in the course of time many individuals were able to achieve this.

From the point of view of acclimatization to the diet, it was found that the loss of weight was rapid in the first few months. Acclimatization was then followed by a slight gain, after which the individual remained fairly stable unless some other illness overtook him. Such a mild condition as an attack of malaria or diarrhoea, however, resulted in a rapid loss of weight out of all proportion to the seriousness of the illness concerned.

In general, it was noted that the short stocky type of individual was more adaptable both mentally and physically to the diet. Tall, bulky men seemed to take longer to become acclimatized, and suffered more from general debility and weakness on recovering from diarrhoea.

JOURNEY BY SEA FROM HONG KONG TO JAPAN.

In April, 1944, the writer was one of a party of ten medical officers who were transferred from Hong Kong to Japan. The party was transferred from Argyle Street Camp to Shamshuipo Camp where a draft of ten medical orderlies and two hundred other ranks was made up.

The draft was isolated for a period of two weeks at Shamshuipo Camp, Hong Kong, during which time inoculation against typhoid, dysentery and cholera was carried out, together with stool tests. The latter consisted of inserting a glass rod into the rectum and rubbing it over an Agar (?) plate. The results were presumably cultured and examined as we were told later in Japan that one of the men (name unknown) was a cholera carrier.

The draft of 220 officers and men were transferred to a Japanese transport on April 29, 1944. They were accommodated in the rear hold of the ship, one deck below the main deck.

This hold was unbelievably filthy and, in addition to prisoners, carried a cargo of dried fish and soya. During the whole trip the area was infested with flies. During fine weather it was possible for all the men to lie down, but the centre of the hold was not rain proof and, during the heavy
rain storms encountered on the voyage, a number of the passengers had no dry place to sleep. Accommodation for sleeping was provided for about 150 men on wooden galleries built round the sides of the hold.

Two meals of rice, dried fish and putrid meat were served daily. Quantities were adequate. Two tins of corned beef were allowed each man for the whole trip which lasted fourteen days.

Tea, about half a pint per man, was issued twice daily. For the first three days drinking water was difficult to obtain. At that time the ship was on a southerly course and the heat in the hold was considerable. Men were allowed on deck for half an hour, morning and evening. On the second and third days several men collapsed and the allowance of water was increased to about a pint a day. Representations to the Japanese also resulted in permission being granted for half the draft to sit on deck during the day after the ship left Formosa on about May 3.

A few drugs were supplied to the draft before leaving Hong Kong, these were supplemented by "private purchase."

During the journey several men suffered from malaria whilst diarrhoea and dysentery was epidemic by the end of the journey. No provision whatsoever was made for the care of the sick. No deaths occurred however.

The ship was one of a convoy of six. In addition to prisoners a number of Japanese sailors and soldiers were carried. The ship was not marked in any way to indicate that prisoners were on board. No incidents due to Allied submarine action occurred.

The prisoners disembarked at Moji, Japan, on May 13, after a journey of fourteen days.

It may be remarked that this journey was made in comfort compared with other drafts sent to Japan.

SHINAGOWA, P.O.W. HOSPITAL, TOKYO, JAPAN.

[May, 1944 to August, 1945.]

DESCRIPTION OF HOSPITAL.—The hospital was situated on the outskirts of Tokyo to the south of the City.

The surrounding area, whilst not heavily industrialized, had the following objectives in close proximity to it: (a) A Naval training school within a distance of half a mile; (b) Several small factories and shipyards within the same radius; (c) Immediately adjacent to the hospital was an aircraft detector (?) or searchlight generator, manned by about thirty soldiers.

The hospital itself occupied part of an island about half a mile square. This island was bounded to the East by the sea and on the other three sides by canals. It consisted of a series of wooden barracks reported to have been constructed originally for Korean labourers. They consisted of an administrative block and five huts or barrack buildings. The walls consisted of two layers of thin boarding with a space of four inches between. Each barrack was partitioned off into two bunks accommodating three or four officers or orderlies and four rooms, each capable of housing up to twenty patients. The floors were raised about a foot from the ground and were covered with
the standard Japanese straw mats known as "Tatami." The rooms were well lighted along one side by sliding windows. On the other side, a corridor ran the length of the barracks.

During the winter of 1944-45 there were no heating arrangements except for a charcoal brazier in one of the rooms housing pneumonia cases.

At the end of each barrack was a latrine consisting of urinal and four compartments built over a two foot deep concrete tank. The latter was accessible from outside through a wooden cover. The latrines were emptied, when full, by Koreans until March, 1945, when air raids disrupted the organization. This then became a task for prisoners. The faeces were emptied on the camp gardens and farm. Protests on the above matter were made on sanitary grounds without avail, it apparently being a common practice in Japan. A concession was made, however, with regard to faeces from the dysentery barracks. These were emptied into a pit dug adjacent to the Naval School.

Ablution benches with cold running water were provided.

A hot bath in a wooden tub capable of accommodating six men was allowed twice weekly.

A fire was lit underneath and the water kept continuously hot for all personnel.

Both Japanese and prisoners' food was prepared in the same cookhouse. Facilities were poor, only the standard "Kongs" for rice and soup being available.

All culinary procedures were supervised by the Japanese who forbade anything in the nature of "special cooking." Such orders as those to boil fish rather than grill it were given without any good reason. Invalid cooking was impossible.

All drainage was open. Sullage water flowed from the Camp through open ditches which were deepened as necessary.

Rubbish was burnt or buried, none being taken out of the Camp.

The Camp was completely unsuitable for the housing of sick men. Its aspect was depressing, its sanitation primitive and the living accommodation unsuitable for even healthy human beings by Western standards.

The Japanese, apart from admitting that the place was dirty, seemed incapable of conceiving or supplying anything better.

The whole area was overrun with rats and the buildings infested with bed bugs and fleas.

It took new arrivals weeks to accommodate themselves to the latter, sleep being at first an impossibility. In the summer months mosquitoes were thick. Nets were provided on the scale of two to every four rooms. These each accommodated about six men.

JAPANESE STAFF.—The Japanese staff consisted of a Japanese Medical Officer as Commandant (Captain Tokeda), four N.C.O.s and five other ranks with a civilian interpreter.

PRISONER-OF-WAR STAFF.—The number of personnel varied from six to ten medical officers and twenty to thirty orderlies. At the time of the
Japanese surrender the medical staff consisted of six officers, fourteen orderlies and six cooks. In addition to these, seven Italians were attached to the Camp. They performed general labour work.

General Routine of Camp.

Certain rules for the maintenance of discipline and general conduct of the Camp were laid down by the Japanese. As these were frequently contradicted, however, only a general impression can be given.

Discipline.—Discipline was according to Japanese Military Law. Most infractions were dealt with summarily by the particular Japanese who decided that a rule had been broken. Common infringements of rules consisted of smoking in the wrong place, failing to salute a Japanese, talking during roll call.

It was required of all ranks, including officers, to salute all Japanese soldiers, N.C.O.s and officers. Punishment usually consisted of being struck one or more times across the face, or being made to stand to attention for a number of hours according to the temper of the particular Japanese who gave the sentence. Severe infractions of discipline, such as stealing food, were punished by imprisonment in the guard room for a few days. This entailed kneeling to attention during the hours of daylight and being allowed what rations the guards thought the prisoner ought to have. In the case of two men who stole bread during an air raid, the offenders were tied naked, with their arms doubled up behind their necks, to the wall and their feet just touching the ground for five days. They were given a bare allowance of water. In all cases of infraction of discipline the punishment was usually entirely out of proportion to the crime and appeared to depend on the state of mind of the Japanese administering it.

During the summer time morning roll call was held at 5.30 a.m. and evening roll call between 7 p.m. and 9 p.m. Working hours were from 7.30 a.m to 11.30 a.m. and 1 p.m. until 5.30 p.m.

Roll call was attended by all the medical staff and the convalescent patients. It was conducted according to Japanese Military procedure. All personnel were expected to number off in the Japanese language, whilst officers in charge of barracks were required to give commands and report the number and reason for absentees in Japanese. Reports and drill movements were required to be carried out smartly. Lack of compliance resulted in summary punishment.

In the winter, roll call was held at daybreak and dusk. The staff were not allowed to wear overcoats or gloves at this parade even when the temperature was 10° below freezing point, this apparently being the custom in the Japanese Army.

All convalescent patients and all medical staff were expected to work. Patients’ work consisted in emptying latrines, farming and digging. Two parties daily were sent out to work in the adjacent shipyards. Tasks consisted there in shifting materials, digging air-raid shelters, etc. These shipyards were not actually in production and were apparently in the nature of repair yards for small barges and fishing craft.
Work for the medical staff was of a similar nature except that officers were not asked to empty latrines. They were expected to perform all other tasks, however, such as farming, carpentry, digging shelters, etc.

Hours of work were from 7.30 to 11.30 a.m. and 1 p.m. to 5.30 p.m. but were modified if the staff had medical duties to perform. In actual practice this meant that medical officers were excused manual labour on alternate days from 7.30 a.m. to 9 a.m.

It is considered that the patients were definitely overworked and that great hardship resulted thereby. Rest periods were few and depended on the guard in charge of the working party. Men were dead tired at the end of the day, and in many cases said that the work at the hospital was harder than at their camp.

An official rest was granted on Sunday afternoons.

The medical staff were paid according to their rank. The money, however, had little or no value. A small quantity of cigarettes, about 50 per man, was purchasable at irregular intervals, about once in six weeks. Tea was also purchasable. No pay was given to the patients.

Diet.—The diet at the camp was never good and deteriorated considerably towards the end of the war. A certain basic ration was laid down and would have been almost adequate had the Japanese adhered to it. Petty pilfering, however, and the Japanese custom of taking a percentage, resulted in the prisoners suffering considerably. As an example, if fish came into the camp for 200 prisoners and 20 Japanese, the latter would appropriate 75 per cent of the consignment. Such items as sugar and peanut oil were almost never seen by the prisoners although on the official dietary.

As in other camps an official dietary was laid down for officers, working men and non-working men. These were as follows:—

- **Grain** (Rice, Barley and Beans—usually mixed)—
  - For Officers—390 grammes daily.
  - For Working men—705 grammes daily.
  - For Non-working men (Bed Patients) 570 grammes daily.

The grain ration was supplemented by vegetables at each meal and fish two or three times weekly. Vegetables were made into soup and consisted of potato tops, carrot tops and cabbages; more rarely actual potatoes, carrots and other root vegetables were allowed.

Meat was a rarity but occasionally bones were issued and cooked with the soup after the marrow fat had been appropriated by the Japanese. In actual practice the officers were granted the full working ration for most of the period of captivity. On occasions, however, the Japanese would remember the regulations and place them on officer’s diet for a few days.

The actual quantity of grain was extremely variable. The official mixture was one-third barley or Manchurian corn, one-third rice and one-third beans. Quantities issued daily varied from 600 to the full 705 grammes. The average was about 620 grammes. This diet was a definite improvement on that in Hong Kong where only white rice was given.

The average caloric value of the diet was in the region of 1,800 per day.
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Food was prepared under Japanese instructions and supervision. Any method of cooking that might be thought to be in the nature of a luxury, such as grilling the fish, was forbidden. There were no facilities for cooking for invalids. Cases of dysentery were expected to thrive on a mixture of rice, barley and half-cooked soya beans. An attempt to cook the beans separately from the rice and make them more digestible was forbidden by the camp commandant.

On occasions it was possible to prepare soft white rice for the very sick patients but the majority could not be catered for.

During the period May, 1944, to August, 1945, Red Cross parcels on the scale of one per man were received in December, 1944, February, 1945, and March, 1945. A further consignment on the scale of three to five men was received in April, 1945.

In every case except the consignment of March, 1945, the parcels were opened by the Japanese and some of the contents removed. In most cases the loss was two or three packets of cigarettes and two or three tins. It is considered that all of the Japanese staff of the camp were guilty of this larceny. It is also considered that they appropriated complete parcels, on a scale unknown, for themselves.

The patients derived great benefit from these parcels, however, which were received at the coldest time of the year, and a very great debt is owed to the representatives of the International Red Cross in Tokyo for their efforts on behalf of the patients.

That the hospital had an adequate supply of drugs and instruments is due entirely to the work of the Red Cross. Japanese drugs were supplied on a homoeopathic scale and, without the very generous supplies sent by the Red Cross, the work of the hospital could not have been carried on with any degree of efficiency. Some attempt at control by the Japanese authorities of the Red Cross drugs was made, and it is suspected that a percentage was diverted from its proper source but, on the whole, the patients received the medicines thought to be suitable for them by the Allied medical officers, it not being difficult to circumvent the restrictions imposed by the Commandant.

Permission had to be obtained from a Japanese N.C.O. to give blood plasma and intravenous infusion, but this was usually granted.

The Japanese Commandant and his Assistant, Lieutenant Fugi, of the Japanese Army Medical Corps, would periodically go through the medicine charts of the patients and recommend or delete certain drugs.

Their decisions were usually arbitrary and seldom had any scientific basis. For these reasons they invariably forgot what they had said on a previous occasion and the Allied medical officers continued to prescribe drugs as they thought fit.

Medical officers were appointed to barracks and had the entire medical care of the patients assigned to them. Case notes were kept on each patient together with a record of treatment received. These records were carefully supervised by the Japanese Commandant who occasionally added remarks in Japanese characters. The Japanese appeared to attach great importance
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to these records as did the Allied medical officers who hoped that they would be preserved for examination after the war.

Unfortunately, however, these records were all withdrawn when news of the Japanese capitulation was received and their present fate is unknown.

Patients were admitted to the hospital from all camps in the Tokyo area. Until May, 1945, this area extended from Tokyo to the Northern tip of Honshu (the main island of Japan), patients from northern camps sometimes making a thirty-six or forty-eight-hour train journey.

After May, 1945, however, the area was reduced in size. It was reported that a new hospital was to be established in the North. Acute surgical and medical cases were admitted only from local camps in Tokyo and Yokohama whilst cases from the North were of a chronic nature.

The Japanese Commandant would make periodic tours of distant camps and send down drafts of sick for treatment.

Cases were sent to the hospital by train, lorry, hand cart or on foot. The mode of transport seemed to bear little relation to the severity of the illness. Pneumonia cases often had to walk part of the way. On one occasion a patient arrived in an ambulance. He was not seriously ill.

Acute surgical cases were often delayed forty-eight hours before admission. In certain cases this was due to the indifference of the Japanese authorities and in others to their incompetence.

No patient could be discharged without examination by the Japanese Commandant. His decisions seemed to have little scientific basis but, with a few exceptions, it was usually possible to dissuade him from sending partly cured men back to their camps.

Surgical Treatment.—Operative facilities were fair. No operation could be done without the permission of the senior Japanese in the camp at the time. This was usually given but in the event of the Japanese Commandant being in camp, this officer would insist on performing, or at least, assisting at the operation himself. The Commandant’s knowledge of surgery was abysmal and his technique conspicuous by its absence.

Whenever possible, spinal anaesthesia was used.

Laboratory facilities existed for direct microscopy, blood examinations and urine analysis.

Medicine.—The task of the medical side was easier than the surgical, there being less interference by the Japanese. In March, 1945, however, the Japanese Commandant decided to take over complete control of all tuberculous and serious medical cases. These were isolated in one barrack which was put out of bounds to all prisoners, including the R.C. Padre then living in the camp.

Details of the treatment carried out by the Commandant, Captain Toheda, included the exhibition of such therapy as intravenous soya bean milk; intraspinal vitamin B, vitamin C, and riboflavin; intramuscular injection of sulphur and castor oil; the unskilful performance of artificial pneumothorax on unsuitable patients.

It is considered by all the medical staff that definite harm and misery was caused to sick men by the above and other treatments.
Minor ailments were not admitted to the hospital. The majority of medical cases seen were those of malnutrition, anaemia and pneumonia during the winter. Many of the above cases were found to be suffering from amoebiasis and thus came under the writer's care.

Cases of malnutrition were usually well established and formed a different problem from the fresh cases seen by the writer in Hong Kong.

The commonest manifestations were beri-beri and hypoproteinaemia. Established pellagra and ariboflavinosis were rare. Scurvy was not seen but cases with slow-healing injuries did well under vitamin C therapy.

A high percentage of cases of beri-beri gave a history of chronic diarrhoea. The possibility of latent pellagra was recognized in these cases. Many cases when admitted demonstrated well-marked oedema of ankles, shins and scrotum. Ascites and even the presence of fluid in the pleural spaces was not uncommon. The urinary output was small and albumin not demonstrable. Cardiac tolerance was poor.

These cases did not react so rapidly to treatment as the Hong Kong ones. The oedema would tend to recur when therapy ceased. It was noticed that the presence of diarrhoea bore a relationship to the amount of oedema. Alleviation of diarrhoea in a case of amoebiasis often resulted in the patient becoming oedematous, whilst a sudden attack of diarrhoea in a case of severe beri-beri resulted in apparent cure of the oedema. In all these cases the water metabolism was apparently upset and a certain period of time was necessary for the mechanism to become adjusted.

The following routine was used as a basis of treatment:

1. Abdominal paracentesis on alternate days if ascites was marked. The average quantity of fluid removed was about 3,000 c.c.

2. Daily intramuscular injections (or in less serious cases on alternate days) of vitamin B (thiamine). Dosage 0·25 to 1 c.c. (strength 50 mg. to 1 c.c.). Vitamin B was also given intravenously with 20 c.c. of 20 per cent glucose in cases of severe cardiac failure.

3. Multiple vitamin therapy was also given by mouth. In practice it was found that the administration of vitamin B by mouth had little effect except in very large dosage. This was thought to be due to poor absorption due to chronic diarrhoea.

4. Blood plasma; one unit, or more, was given in severe cases.

5. Vitamin C was also given by intramuscular injection in severe cases.

Mild cases of oedema of the feet without other signs or symptoms reacted well to 0·25 c.c. of vitamin B (12 mg.) by intramuscular injection on alternate days. The average period per case was two weeks. Cases of chronic oedema appeared to benefit by the administration of calcium chloride intravenously.

The nervous manifestations of malnutrition were variable. In many cases the clinical picture was obscured by a marked functional element, whilst in others it was felt that pellagra, as well as beri-beri, contributed to the clinical picture.
Peripheral Neuritis.—These formed the majority of cases.

Patients complained of a gradually increasing weakness of the legs accompanied by burning and shooting pains described as "electric." Untreated cases eventually resulted in complete loss of function of the legs.

Tendon-jerks were increased at first and later absent. Plantar response was flexor. Sensory changes were variable. In the early stages deep pressure produced severe pain, particularly over the calves. Sensation later tended to disappear although some cases remained acutely sensitive to light touch, even though the limbs were paralysed. These were a source of amusement to the Japanese doctor.

In general these cases resembled those of toxic peripheral neuritis.

Burning Feet.—Certain cases never came to paralysis of the limbs but complained for months of burning feet. The pain was worse at night and the patients could not bear to keep their legs beneath blankets. They were with difficulty prevented from resting their feet in cold water in the depth of winter. In some cases definite arterial spasm with gangrene was noted. These cases were slow to recover in spite of intensive therapy. Many were complicated by a marked functional element.

Paraplegia and Affections of Spinal Cord.—Certain cases were seen in which the spinal cord or the nerve roots themselves were affected. Physical signs were usually those of an upper motor neuron lesion but they were often bizarre. The gait was spastic, the tendon-jerks exaggerated and the plantar response extensor. Muscle wasting was slight. Sensory changes were variable. Position sense and co-ordination were most usually affected.

Many cases bore a superficial resemblance to advanced disseminated sclerosis. They usually did well with intensive vitamin therapy, but in several of them functional neurosis complicated the picture.

Pellagra.—Few established cases of pellagra were seen. Occasionally a case of diarrhoea of unknown origin with slow cerebration was seen and found to react well to nicotinic acid. Few typical pellagrous rashes were seen but many patients demonstrated a dry scaly skin. This was thought to be due to lack of fats in the diet rather than to pellagra.

Ariboflavinosis.—This was uncommon. A few cases of scrotal eczema with sore tongue and rhagades of the mouth were seen in the summer. They reacted rapidly to riboflavin by mouth.

Pneumonia.—Pneumonia was a high cause of mortality in work camps and in the hospital. Cases sent to hospital were seldom seen before the third day. They were treated with sulfa drugs and did well if caught early enough. Nursing facilities were practically non-existent. The Japanese practice of making the patients walk part of the way to hospital and of moving cases on the third and fourth day of illness did not improve the recovery rate.

The high incidence of pneumonia can be attributed to overwork and malnutrition.

Mortality rates of as much as 40 per cent of the camp have been quoted to the writer by medical officers of camps, particularly during the first two years of captivity.
DYSENTERY.—A few cases of bacillary dysentery were treated, but the majority of cases were those of amoebiasis. Many cases of infestation with *Giardia lamblia* and *Trichomonas hominis* were seen.

**Bacillary Dysentery** was diagnosed by direct microscopy. Cases were few and seldom severe. They reacted well to treatment with sulfaguanidine or sulfadiazine. The average dosage was two grammes on admission, and one gramme four-hourly. The results were better with sulfadiazine than with sulfaguanidine. Patients were usually symptom free in twenty-four hours.

**Amcobic Dysentery** was almost endemic amongst prisoners of war in Japan. Few have not complained of diarrhoea, often for long periods at one time or another during captivity. The writer's experience suggests that a high percentage of these have suffered from chronic amoebiasis.

Most cases admitted to the hospital gave a history of intermittent diarrhoea for months. Attacks lasted for a few days when the patients passed about ten foul-smelling stools in the twenty-four hours, many cases reported never having passed a firm stool since arrival in Japan. Abdominal pain was common. A few cases gave a history of passing foul bloody stools with severe tenesmus. It should be noted that many cases were treated in their camps and never reached hospital.

About three hundred American, British and Dutch cases passed through the writer's hands from June, 1944, to August, 1945. Diagnosis was confirmed by microscopy.

**Symptoms.** *Type I.*—Intermittent diarrhoea of a chronic nature. Blood seldom seen in the stools. Mucus common. Abdominal pain common but mild.

*Type II.*—Acute onset with fever and bloody diarrhoea. Abdominal pain and tenesmus severe.

**Physical Signs.**—Acute abdominal tenderness. Spasm of descending colon.

**Treatment.**—Adequate treatment was not possible. Only a small quantity of emetine bismuth iodide was available in 1944, and none in 1945. Approximately six cases were given a full course of this drug. They had not relapsed as far as was known at the time of writing.

Emetine for injection was available from time to time. The quantity of the drug was limited. The results of treatment were disappointing. Almost all cases treated by emetine injections relapsed. This was thought to be due to the following:

1. Previous treatment; when the patient was given a short course of emetine in his camp. This often saved his life at the time and rendered him temporarily symptom free, but in many cases his disease relapsed and was emetine resistant.

2. Similar difficulties were encountered in the hospital. Limited supplies of the drug only were available. In many cases it was necessary to give emetine when the patient was passing ten-minute bloody stools and rapidly losing strength. Carbasone (*vide infra*) had little effect in these cases.
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Unfortunately it was seldom possible to follow up with a full course of emetine and relapses occurred.

**Lack of Proper Diet.**—There was no provision for dieting these cases, and either they ate grain and half-cooked beans or they ate nothing. Soft white rice could be supplied unofficially to not more than two patients without the Japanese finding out. The remainder had to do as best they could. Adequate rest to the bowel was impossible without starving the patient. Most cases placed on emetine received 10 grains over a period of fourteen days. The relapse rate was high.

**Carbasone** was available in large quantities. Compared to the writer’s peacetime experience with emetine bismuth iodide and emetine the results of treatment were disappointing.

The usual course given was 0.250 gramme b.i.d. (2 capsules) for ten to twelve days.

Mild cases became symptom free in forty-eight hours, but the drug was slow acting in cases of violent diarrhoea with fever and frequent bloody stools.

The relapse rate was in the region of fifty per cent. It was found that cases of recent origin did well and relapsed far less than the chronic cases with a history of several months’ diarrhoea.

Almost all the latter cases, even if symptom free, were found to be carrying cysts of *E. histolytica* after the completion of their course of treatment. The majority of cases required at least two and sometimes three courses of carbasone before the stools were clear. A two weeks’ interval was given between courses. No cases of arsenic poisoning were seen.

**Yatren** for oral administration was supplied by the Japanese. 10 cases were given the following course:—

- Viz.—3 capsules (0.250 t.i.d.) for three days
- 6 capsules for three days
- 9 capsules for three days

The relapse rate was 100 per cent

It is difficult to assess the results with scientific accuracy as all notes were taken by the Japanese. It is considered, however, that emetine, to be effective, must be given in adequate dosage.

Carbasone did not seem effective in curing cases of long duration, and was slow to alleviate the symptoms in severe acute attacks. It appeared effective in mild fresh cases.

Emetine bismuth iodide was the drug of choice, and it is regretted that a larger quantity was not available.

Japanese regulations required that a patient show four negative stools before discharge as well as a clear sigmoidoscopy examination.

Japanese regulations laid down that stools were to be passed into a Petri dish in the ward and not in the laboratory, so that cold stools had to be examined.

**Sigmoidoscopy,** part of the test for cure, was carried out by the Japanese Commandant.
The patient was placed on his back with the legs drawn up. The sigmoidoscope, fortunately a small one, was then plunged into the rectum, twisted violently round and then passed as far as the operator could manage under direct vision. A swab would then be taken for microscopy, the remark made that the mucous membrane was hyperemic and the instrument plucked out. About thirty seconds were allowed to examine the specimen for amebae.

For the above reasons it is not considered that the procedure was of any value as a test of cure. The patients were put to a useless, painful and degrading procedure merely to satisfy the sadistic instincts of the Japanese Commandant. Suggestions that the procedure might be carried out by the writer or that another technique might be better were met either with a grunt or a sharp refusal.

Complications of Amoebic Dysentery.—Complications were rare. Only two cases of amoebic hepatitis were seen. Both did well with emetine. One case of perforation of the sigmoid colon was seen. This case came to post-mortem when a 4-inch rent was found in the sigmoid colon. The patient had shown no signs of peritonitis and had passed stools up to the time of death.

Two cases of appendicitis were seen and operated upon. In one case the pre-operative diagnosis was that of perforation. The whole bowel was found to be oedematous and very inflamed. The cæcum was acutely congested and ulcerated. The appendix was acutely inflamed. Microscopy after removal demonstrated the presence of *E. histolytica*. Although the patient's red blood count dropped to less than one million, he made a good recovery. Blood transfusions and a course of emetine were given post-operatively.

In the other case a large quantity of pus was evacuated from the right iliac fossa. The appendix was not found. *E. histolytica* were demonstrated in the stools. The patient made a good recovery with emetine bismuth iodide.

A large number of cases of diarrhoea due apparently to infestation with *Giardia lamblia* or *Trichomonas hominis* were seen. They were treated with large doses of atebrin. Usually 0·1 gramme six times daily for three to four days. This treatment usually resulted in cure.

Other Infectious Diseases were rare. One case of diphtheria was seen in 1944, and seven cases were admitted after the Japanese capitulated. These were American Air Corps personnel who had been kept in solitary confinement since being shot down in May, 1945. Three of them were suffering from a more or less severe degree of paralysis as well as malnutrition. A history of sore throat about six to eight weeks previously was given. None of these cases had had any form of treatment prior to being released from solitary confinement on August 16. One man had also sustained a fracture dislocation of the ankle which had been allowed to become fixed out of position. All seven men were suffering from malnutrition. They were treated with anti-diptheria toxin, vitamin therapy and blood plasma on admission. They were doing well when last seen on August 29, 1945, when the hospital was evacuated by U.S. Naval forces.

Dental Treatment.—Dental treatment was carried out with the few
instruments available, many of them made in the camp from odd scraps of metal.

The work carried out was of necessity of a temporary nature. It is of interest to note that a satisfactory dental drill was manufactured by a Norwegian, Mr. H. Pederson, out of an old speedometer cable, some scraps of brass and an electric motor. This civilian, who was captured off a British ship, made many of the instruments and equipment used in the hospital. His ingenuity in constructing such things as bed-pans, sterilizers and other equipment was of great benefit to the hospital.

Mental Disease.—Only a few cases of mental disease were admitted to the hospital, they included a case of maniacal epilepsy, some cases of simple depression and suspected schizophrenia. There were no cases under mental supervision at the time of release.

The large number of functional neuroses that complicated the diagnosis of beri-beri have been remarked upon. In general, these cases recovered rapidly. The writer is hardly in a position to discuss the question of P.O.W. neurosis but, as far as he can judge, the majority of prisoners released with him seemed mentally quite normal.

Facilities for recreation in the hospital were few. Books were provided by the Red Cross, about ninety during the last few months of captivity, but there was little opportunity for reading. Musical instruments were also available, but as music was discouraged during the daytime and patients were too tired in the evening, little could be done in the way of organized amusement. In spite of this, however, morale was good and, in general, the atmosphere of the hospital was cheerful.

The patients were not unduly disturbed by air raids, in fact these had an excellent effect on morale. An adequate air-raid shelter was built by the staff in February, 1945, and was used on several occasions. No high explosives fell in the camp area but a stick of fire bombs fell in the camp on May 24, 1945. One barrack building caught fire, but no damage or injury to personnel was caused.

Conclusion.

An attempt has been made to give a general picture of the hospital with a brief account of the medical work carried out. No specific accusations have been made with regard to ill-treatment.

The writer has tried to indicate in a general way, however, the conditions and abuses from which the patients suffered.
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A. J. N. Warrack

*J R Army Med Corps* 1946 87: 209-230
doi: 10.1136/jramc-87-05-02

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