

## Leprosy Relief in Fiji.

### THE CENTRAL LEPER HOSPITAL, MAKOGAI, FIJI ISLANDS.

By E. A. NEFF, M.D., L.C., of P. & S., Alberta  
(Medical Superintendent).

The new appellation, "central," is the result of this Government's agreement, arrived at nearly four years ago, to accept, not only patients from this group of Islands, including Rotumna, but also patients from the Dominion of New Zealand, the Cook Island group, Tonga and Samoa. This resulted in the New Zealand Government's station, at Quail Island (near Wellington), being evacuated and the patients conveyed here, ex N.Z.G.S. *Hinemoa*, in August, 1925. Segregation centres in the Cook Islands and Ronga were similarly closed. Much building has been necessary to accommodate the extra patients—approximately 100—but the move has meant much to this institution both financially and through the added interest centred here. The prime mover in this policy was the Hon. Dr. A. Montague, Central Medical Authority and Chief Medical Officer, Fiji, and, in my opinion, all concerned now realize how wise a policy this has been.

The nativity of patients, as at the close of 1928, is of interest and varies little year by year. It is as follows :—

<i>Race.</i>	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Europeans ... ..	5	—	5
Half-Castes ... ..	6	7	13
Fijians ... ..	78	40	118
Melanesians (Solomon Islands) ... ..	39	5	44
East Indians ... ..	91	32	123
Rotumans ... ..	4	3	7
Chinese ... ..	10	—	10
Samoan ... ..	6	5	11
Maori ... ..	2	—	2
Nuie Islanders ... ..	1	1	2
Cook Islanders ... ..	22	41	63
Tongans ... ..	5	6	11
Totals ... ..	269	140	409

Makogai is an island of some 2,000 acres lying eighteen miles north-east of Levuka, the old capital of Fiji. It is a rocky cone with four distinct, and many smaller, peaks, the highest being 876 feet above sea level. It is a delightful island with an agreeable climate, the tropical heat being tempered by the South-east trade winds. The island is entirely given up to leprosy work and, on account of its position,

absconding patients do not enter into the administrative problem. The staff, consisting of a Medical Superintendent an assistant Medical Officer, Lay Superintendent, Captain of the island vessel, Farm Overseer, Bakers, and forty native labourers, are situated at the farm, NaSau at the extreme southern end of the island and the patients at Dalice at the northern end. Patients are forbidden, for obvious reasons, to pass the boundary a mile from NaSau. The Nursing staff consists of a Reverend Mother and twelve European Sisters of the French Order of Mary, as well as eight native nursing Sisters. They are housed at Dalice in a separate compound, quite apart from the patients.

With few exceptions, the lepers at Makogai are contented with their lot. They are housed comfortably in quarters which are always kept in repair and their immediate behaviour is in the hands of intelligent head-men of their own race. They receive prompt medical and surgical attention, excellent nursing, good food, and are, for the most part, burdened with no responsibility at all. Idleness is discouraged and apparent brooding over their disease is not allowed.

The men are kept busy in any way they desire, although all capable of it are required to spend one day a week at least on work directed towards the care and needs of the station. Otherwise they employ their time on public works (at a wage), furniture making, the building and sailing of model boats, fishing, gardening and various games—cricket, football, tennis, etc. The women do the laundry work for all the male patients as well as their own, and busy themselves as they would in their villages. Mat-making, weaving of native cloth, the making of hat and needle work, takes up much of their time. The fifty children of school age at present here attend school for a few hours each day, and then occupy their remaining time as children do the world over.

Our efforts to teach the essentials of personal hygiene are meeting with some success, and baths twice a day and clean clothes no longer, for the most part, need be talked about. The patients are required to retire each night at 9 p.m., unless special permission is obtained. An excellent picture show is given every Thursday evening. This regular life, and 90 per cent. of the patients live it, does much to assist treatment and, in my opinion, has much to do with the final results.

Patients capable of it are housed in villages—each race separately—and the villages are not composed of native houses, but of permanent wooden houses complete with bath-rooms and kitchens. Each house provides comfortable accommodation for four patients. Each of the principal villages has a commodious dressing-room, placed centrally, which an European Sister visits daily. Patients who require hospitalization are sent by her to a large central hospital where the necessary treatment is carried out. The villagers cultivate many and varied gardens, the surplus produce of which they sell to the government

for distribution to the hospital inmates. Some £40-£60 is thus monthly distributed among them. The sexes are kept apart, the women being housed in a compound in the hospital enclosure.

The hospital is well equipped and funds are never lacking for essentials. It consists of airy, well constructed, permanent wards to accommodate up to 200 patients, a detached isolation unit, detached operating and dressing rooms, a pharmacy, administration building, recreation block, and a well equipped laboratory with separate modern photographic dark-room and a large, pleasant room for storage of specific drugs and the manufacture of the ethyl esters. The large concrete verandah of this latter building was specially built for the administration of injections. Meals are supplied from a central kitchen to the wards and to large, permanent, open-air dining rooms in which patients capable of it, take their meals.

A patients' co-operative store, situated in the hospital compound, is managed by the Lay Superintendent and a Sister, on the patients' behalf, and from this nearly anything may be purchased. A small profit is made and accumulated profits are distributed to the patients at Christmas time. Money earned by the patients is directly reflected therein, the monthly turnover amounting to something over £200. A bank is maintained by the Reverend Mother, and in this there is always more than £1,000 on deposit. All accounts are "current."

The results of treatment are encouraging and improve year by year. This is due to many causes which space will not allow me to enumerate, but I might say we are assisted by the absence of serious co-existent disease. Hookworm and other intestinal parasites are present, but it is rare to find individuals heavily burdened. Syphilis is occasionally encountered, complicating the disease in the case of the Indians, but is yet to be found in the native islanders of the south Pacific. Yaws is very often seen, but readily yields to specific treatment. Malaria is unknown in the groups from which we draw patients.

It is good to note that we now, each year, receive more early cases of leprosy.

During 1928 the chief drugs used were :—

1. Alepol.
2. Sodium Gynocardate.
3. Ethyl Esters of Hydnocarpus Wightiana.
4. Ethyl Esters of "Dilo" oil (Calophyllum Bigator).

Potassium Iodide is also being tried but I do not yet feel justified in giving results.

In all, 376 patients received treatment during 1928, including 84 admitted during that year. Results, in types of the disease, are as follows:

<i>Type.</i>	<i>Improved.</i>			<i>Stationary.</i>			<i>Worse.</i>		
	%			%			%		
Maculo-Anæsthetic ... ..	77	26		18	18		4	52	
Early Neural ... ..	74	20		16	13		9	67	
Advanced Neural ... ..	42	11		44	74		13	15	
Early Cutaneous ... ..	91	31		4	35		4	35	
Mod. Advanced Cutaneous ... ..	79	55		9	09		11	35	
Advanced Cutaneous ... ..	67	57		13	51		18	92	
Early Mixed ... ..	74	29		14	29		11	42	
Advanced Mixed ... ..	37	21		6	98		55	81	

The "stationary" column suffers through containing those admitted during the year, and not yet showing definite enough improvement to be classified higher, and the "improved" through the 55 patients discharged not being classified therein.

All patients are required to take daily doses of raw chaulmoogra oil, by mouth, in addition to their injections.

I should just like to add, in connection with drugs, that to date Alepol and Sodium Gynocardate stand pre-eminent at Makogai in so far as results are concerned. Both are powerful therapeutic agents and the absence of serious, painful local reaction allows their continuous use. Out of 16,608 injections given during 1928, 12,412 were with these drugs and the results were splendid.

The patients are required, under the Provisional Discharge Ordinance, to be free for two years from active signs of the disease and all smears, during that time, must be negative for *Mycobacterium Lepreæ*.

Fifty-five have been passed by the medical board for discharge during 1928. This represents 14.7 per cent. of the above treatment group or 12.4 per cent. of the mean population of the hospital. Fifty-two of the above actually left the hospital during the year, and the remaining three await suitable transportation.

At the time of writing fifty-four patients are free from active lesions and remain bacteriologically negative, and these should be ready for discharge during the current year.

Fourteen years ago no hope could be given nor did a discharge ordinance exist, and the patients who arrived here were doomed to confinement for life.

Altogether the prospect of gradually but surely ridding these islands of leprosy seems bright, and one can honestly afford to feel optimistic. Early cases are coming forward, the patients are happy and hopeful through noticeable improvement of their disease, and, through their enthusiasm, altogether a different spirit, regarding leprosy, is being broadcast through all the Islands, to the distinct advantage of this hospital.