

ances were fixed at sufficient quantities to meet the average requirements of one hundred patients, on the understanding that issues would be made by the steward in bulk, and that distribution would take place in the main diet kitchens and in the seriveries.

STANDARD MENUS.

On investigation it was found that, in so far as active treatment hospitals were concerned, about 11 per cent. of all cases were on milk diet. An effort was then made to divide the allowance per hundred patients in such a way that approximately 90 per cent. of the patients would consume the entire meat allowance, while the other 10 per cent. would have a sufficiency of milk and milk puddings. This resulted in the drawing up of a standard menu, which became effective early in April, 1918. This menu was based on both Scales "A" and "B" of the Army Council Instruction, and was sufficiently under the maximum allowance to provide for a limited issue of ward extras, as well as a margin of safety to prevent, where possible, an over-issue of the maximum allowance.

In comparison with the maximum laid down in Scale "B," the per capita value of the ordinary diet was as follows:—

TABLE II.

FUEL VALUE OF STANDARD MENU.

	Protein Grms.	Fat Grms.	Carbo- Hydrates Grms.	Calories
Standard Menu ...	100.99	118.30	407.19	3,266
Reserve ...	5.79	14.06	13.49	124
Maximum allowance	106.78	132.36	420.68	3,390

The standard menu provided considerable variety, but was subject to adverse criticism on the following grounds:—

- (a) Deficient meat content.
- (b) Too many fish meals.
- (c) Too many cereal dishes.
- (d) Shortage of sugar and jam.

The shortage of meat was generally remarked, but gave the greatest cause for complaint in hospitals where the majority of patients were walking about or engaging in physical exercises. The objection to so much fish and cereals in the menu was to some extent anticipated, for previous experience in the feeding of Canadians had demonstrated that neither of these foods is popular as a main article of diet. This had been found to apply not only in the feeding of sick men, who might be expected to offer some objection, but to the personnel of staff messes as well.

Unsatisfactory methods of preparation employed in hospital kitchens were to some extent responsible for the complaint, but even when these difficulties had been overcome it was still reported that the standard menu gave cause for adverse criticism on the grounds of deficient nutrition. For the purpose of testing the truth of this complaint, seventeen patients at one hospital were kept under observation, twelve of them for a period of fourteen days from date of admission, and five of them for a period of twenty-one days from date of admission. At this hospital they underwent special treatment, and in addition to ordinary ambulatory exercise they were placed on a course of light calisthenics, with the result that all but two of them lost weight.

These patients were under observation during the period April 11 to May 13, 1918. They were carefully weighed on admission, and again at the end of the period of observation, the results being as follows:—

TABLE III.

EFFECT OF REDUCED DIET.

Section 1.

	Weight on admission	Weight at end of 14 days	Loss	Gain
A. ...	144.25	141.5	2.75	—
B. ...	164	162.5	1.50	—
C. ...	154.5	156	—	1.50
D. ...	154	153	1.00	—
E. ...	126	125	1.00	—
F. ...	156	152.5	3.50	—
G. ...	141	140	1.00	—
H. ...	132	131	1.00	—
I. ...	135	133	2.00	—
J. ...	141	136.75	4.25	—
K. ...	167	162.50	4.50	—
L. ...	140	136.50	3.50	—

Section 2.

	Weight on admission	Weight at end of 21 days	Loss	Gain
A. ...	142	144	—	2.00
B. ...	154	151.25	2.75	—
C. ...	152	150	2.00	—
D. ...	137	136	1.00	—
E. ...	142.5	141.5	1.00	—

Further examination of results obtained confirmed the contention that the standard menu provided a deficient diet for ambulatory and convalescent patients. All hospitals co-operated in giving this reduced dietary a fair trial during April, May, and June. The conclusion was then reached that, while the maximum scale laid down in the Army Council Instruction might be sufficient for bed patients, averaging ten hours asleep and fourteen hours awake in bed each day, the caloric value of the diet was not sufficient to meet the requirements of ordinary routine in Canadian hospitals, where a large percentage, even in active treatment hospitals, were able to be up and about the wards and grounds.

In the case of convalescent and special hospitals engaging in physical or remedial exercises the diet laid down was admittedly too low. The opening of a special hospital for the treatment of tuberculosis called for special consideration. As a result three scales of diet, based on the average requirements of one hundred patients for one day, were made effective from the first of July. These scales are now in operation, and during the past three months have given satisfaction.

The three scales of issues were made applicable as follows:—

Scale A.—Maximum diet. Tuberculosis patients.

Scale B.—Full diet. Convalescent and special patients undergoing physical training.

Scale C.—Reduced diet. Patients undergoing active treatment in primary and special hospitals.

The quantities considered sufficient to feed one hundred patients for one day with the nutritive ratio and caloric value of the component parts in each class of diet will be found in the following table:—

TABLE IV.

CANADIAN HOSPITAL DIETS.

(Authorized from July 1, 1918, by D.M.S.C./L. No. 31 of 1918.)

Scales of quantities sufficient to feed 100 patients for one day.

SCALE A.					
Commodity	Lbs.	Protein grms.	Fat grms.	Carbo-Hydr. grms.	Calories
Meat ...	75.00	4,455.00	8,481.06	—	95,850
Fish ...	18.75	851.25	84.37	—	4,275
Bacon ...	15.00	645.00	4,083.00	—	40,620
Bread ...	100.00	3,552.52	214.40	24,720.00	117,914
Sugar ...	17.50	—	—	7,778.75	31,885
Margarine ...	6.25	—	2,368.75	—	22,081
Other Fats ...	4.75	—	—	—	—
Potatoes ...	70.00	555.80	32.20	6,668.00	29,890
Fresh Vegetables ...	35.00	120.75	23.80	633.50	3,325
Milk (pints) ...	400.00	7,344.00	8,096.00	10,720.00	150,000
Syrup ...	1.75	19.05	—	550.10	2,327
Jam ...	10.75	15.05	—	3,369.05	13,867
Cheese ...	5.00	567.00	680.00	56.50	8,885
Cereals ...	35.00	1,771.00	304.50	11,770.50	58,345
Tea and Coffee ...	2.50	—	—	—	—
Cocoa ...	2.00	181.33	235.73	385.60	4,517
Eggs (number) ...	250.00	1,275.00	1,012.50	—	14,625
Total ...	—	21,352.75	25,616.81	66,652.20	598,356
Daily average per patient ...	—	213.52	256.16	666.52	5,983

SCALE B.					
Commodity	Lbs.	Protein grms.	Fat grms.	Carbo-Hydr. grms.	Calories
Meat ...	50.00	2,970.00	5,654.04	—	63,900
Fish ...	18.75	851.25	84.37	—	4,275
Bacon ...	12.50	537.50	3,402.50	—	33,850
Bread ...	75.00	2,664.40	160.80	18,540.00	88,436
Sugar ...	9.50	—	—	4,222.70	17,309
Margarine ...	4.18	—	1,584.22	—	14,784
Other Fats ...	3.62	—	—	—	—
Potatoes ...	70.00	555.80	32.20	6,668.20	29,890
Fresh Vegetables ...	35.00	120.75	23.80	633.50	3,325
Milk (pints) ...	130.00	2,386.80	2,631.20	3,484.00	48,750
Syrup ...	1.00	10.88	—	314.34	1,330
Jam ...	4.00	5.60	—	1,253.60	5,160
Cheese ...	3.00	340.20	408.00	33.90	5,331
Cereals ...	35.00	1,771.00	304.50	11,770.50	58,345
Tea and Coffee ...	2.00	—	—	—	—
Cocoa ...	1.00	90.66	117.86	192.80	2,258
Eggs (number) ...	50.00	255.00	202.50	—	2,925
Total ...	—	12,559.84	14,605.99	47,113.54	379,818
Daily average per patient ...	—	125.59	146.05	471.13	3,798