TUBERCULOSIS CASE FINDING AND TREATMENT IN LALITPUR WARDS 1, 2, & 3

from DECEMBER 1970 through AUGUST 1973

- M. R. Bomgars *

A PROGRAM REVIEW

A house to house survey in Wards 1, 2, and 3 of Lalitpur was carried out from December 1970 through April 1972. During that period 1360 homes were surveyed. Sputums were taken from those with symptoms of tuberculosis, i. e. persistent cough, loss of weight, loss of appetite, night sweats, and chest pains, as well as from the entire family of a suspected individual. Of the total sputums collected in this manner, 14% were positive.

As a result of this survey a total of 31 patients with sputum positive pulmonary tuberculosis were started on treatment via the Madras Scheme. The Madras Scheme utilized included twice weekly treatments with streptomycin, isoniazid, and vitamin B6 given at the clinic with home followup for defaulters. During the period of April 1972 to May 15, 1973, two sputum positive patients referred by other agencies were started on therapy, for a total of 33. During the two and one-half year program, eight cases have defaulted despite repeated home visits and have refused to continue the TB treatment program. Three have been transferred to other treatment centers, fifteen have completed the course of therapy, and seven are still receiving therapy.

* Superintendent Shanta Bhawan Community Health Program.

In May of 1973 the 22 who have either completed therapy or are still on therapy were reviewed and visited in their homes, and in July - August, 1973 the defaulted cases and transferred patients were contacted.

Completed Cases: (Chart II)

Of the fifteen who completed therapy, twelve were well and working productively with no one in their families with active symptoms of tuberculosis. One had moved out of the area and was not available for evaluation. One No. 14, who had been irregular in his treatment, had active hemoptysis and a positive sputum. His wife also had symptoms of cough and weight loss. No. 15 on Chart II had not responded to the Madras Scheme but further inquiry revealed that he had earlier treatment in Calcutta and therefore had been inappropriately begun on the Madras Scheme.

Presently On Therapy: (Chart III)

Of the seven on therapy in May 1973, three were sputum positive at the time of evaluation, and are worthy of special comment. Patient No. 1 has been on regular treatment for 12 months and remains sputum positive with loss of weight, and multiple cavities on X-ray. She has been transferred to another treatment regime. Patient No. 2 is a daughter of No. 1 and has recently begun treatment, with an X-ray showing two cavities and a positive sputum. Four other children are mantoux positive and are undergoing evaluation with X-rays. No. 3 has been irregularly on treatment for 18 months and has received only 91 streptomycin injections during that period of time.

Defaulters: (Chart IV)

Eight patients despite repeated home visits and encouragement have taken discharge against medical advice. All but one of these patients were contacted in their homes. Patients No. 1 through No. 4 are the employees of the the same employer and have no complaints. These four older people are living in their employer's residence and express the opinion that the TB medication made them feel unwell, therefore do not wish to continue therapy. Their sputums are negative at present. Only two of the defaulters were unco-operative, No. 6 and No. 8. Both have had treatment for only a short period of time and both are food handlers. Defaulter No. 7 has had no complaints and a negative sputum on three occasions.

Transfers: (Chart V)

Of the three patients transferred to other TB centers, No. 1 was a secondary case and

No. 2 had only a short period of therapy under the Madras Scheme before electing to transfer. No. 3 remained sputum positive after seven months of treatment, hence was transferred to another treatment scheme.

Review:

Of the 33 sputum positive cases, six are under continuing therapy, 12 have successfully completed therapy, one patient has relapsed, and one previously untreated patient has been a treatment failure. One patient has been lost to followup. Of the eight defaulters, one is lost to followup, five are apparently doing well, and two continue to work but remain uncooperative and probably sputum positive.

During this period of evaluation, 1970 to 1973, there were no deaths of patients or near relatives. The defaulter rate was 24%. The combined defaulter, relapsed, and treatment failure rates, not including secondary cases was 33%. Total conversion of sputum positive cases to sputum negative cases of those patients known and available for followup was 82%.

BCG:

During this 2½ year period HMG has held BCG immunization programs in Wards 1, 2, and 3, and the Shanta Bhawan-Surendra Bhawan health programs and facilities were available for BCGs. Among the 28 homes visited on this follow-up survey there were 79 children under the age of sixteen. Seven of these children were eligible for BCG immunization; that is, they were less than five years of age, had no symptoms of tuberculosis, there was no open case presently within the family and no reported positive Mantoux skin test. However, these seven had not received BCG. During the follow-up study six of the children were given BCG in their homes and one was referred to the hospital. It is, of interest, to note that three of these children were delivered in local hospitals which have a policy of immunizing all newborns with BCG. However, these three newborns, who had been born into families with known tuberculosis patients, had been overlooked.

Comments:

The defaulter rate, and relapse rate among this small group of patients must be seriously considered. This treatment program was given under nearly ideal circumstances, which included monthly medical-evaluation, concerned active clinic and community staff, geographical accessibility, home followup, and a constant free drug supply. Despite these circumstances the total failure rate was approximately one-third. The possibility of organisms resistant to firstline available drugs developing under ordinary tuberculosis programs is great, and of concern for all medical and health personnel working in the field of tuberculosis control.

Chart I

HOME SURVEY FOR OPEN TUBERCULOSIS

Ward	Homes	Defaulters	Transfers	On Therapy	Completed	Total
I	518	2	0	4	1	7
II	291	2	1 - Military H.	2	10	15
III	551	4	1 - Private Dr.	0	2	7
IV	-	0	0	0	2	2
Other	-	0	1 - SBH	1	0	2
Totals	1360	8	3	7	14	33

Chart III

PATIENTS ON THERAPY (MAY 1973)

Age	Sex	Children	Sputum	Comments	Complaints	Months	Class
1. 35	F	5	+	No. 1 & No. 2 in same family	Cough, weight loss	12	Rx failure
2. 15	F	5	+		Cough, weight loss		
3. 40	F	4	+	Very irregular	loss	1/2	Active, Cavity
4. 56	M	5	-	2 children on Rx	Improved	8	Rx failure
5. 17	F	1	+		Improved	2	
6. 41	M	3	-	Irregular	Improved	16	
7. 16	F	7			Improved	6	

Chart II

COMPLETED THERAPY

	Age	Sex	Children	Comments	Complaints	Date		Rx	Class
						Complete	Months		
1.	40	M	Not Contacted	-	Change of residence	4/72	16	unknown	
2.	23	F	4		none	2/72	14	favourable	
3.	40	M	5	Field work	none	1/72	13	favourable	
4.	18	M		Kitchen work	none	3/72	14	favourable	
5.	15	F	7		none	3/72	15	favourable	
6.	50	F	3		none	5/72	16	favourable	
7.	45	M	5		none	2/73	13	favourable	
8.	21	F	1	Irregular	none	4/73	+2	favourable	
9.	50	M	7	Field work	none	12/71	12	favourable	
10.	35	F	3	Field work	none	3/72	15	favourable	
11.	65	M	0	Field work	none	12/71	12	favourable	
12.	40	F	1	Field work	none	2/72	14	favourable	
13.	50	F	2		none	6/72	13	favourable	
14.	40	M	3	Irregular, + sputum	Hemoptysis, weight loss	2/73	17	relapse	
15.	40	M	0	Gateman, secondary case, + sputum 11/72	cough	10/72	15	Unsuitable	
				refused further Rx					

1 two months of INH and thiacetazone.

2 Irregular in clinic attendance.

Chart IV

DEFAULTORS

	Age	Sex	Children	Comments	Complaints	Last Rx		Inject.	Classification
						Date	Months		
1.	68	M	0	Gardener	none	11/71	11	69	Probably favourable
2.	58	F	0	Sputum (-), grass cutter	none	1/72	13	79	" "
3.	70	M	0	Sputum (-), gateman	none	9/72	9	54	" "
4.	66	F	0	Sputum (-), grass cutter	none	9/71	8	54	" "
5.	49	F	?	Unable to contact		9/71	1	9	Unknown
6.	52	F	0	Uncooperative, meat seller		3/72	4	8	Unsatisfactory
7.	34	M	0	Sputum (-) X3, not working	none	2/72	10	69	Favourable
8.	42	M	1	Uncooperative, tea shop		5/72	3	29	Unsatisfactory

Chart V

TRANSFERS

	Age	Sex	Children	Comments	Complaints	Last Rx		Inject.
						Date	Months	
1.	23	M	0	Secondary to SBH	Hemoptysis	5/73	5	27
2.	33	M	6	2 cases in family, defaultor before transfer to Military H.	Homoptysis	6/72	4	
3.	17	F	6	to Private Doctor	none	11/72	7	62

References:

1. Ramakrishnan, C. V., et al (1969) Four Year Follow-up, Tubercle, London, 50, 115.
2. Controlled Comparison of Twice-Weekly and Three Once Weekly Regimens, Tuberculosis Chemotherapy Centre, Madras, Bull. Wld. Hlth Org. (1970) 43, 143 - 206.
3. Bajracharya, L. D. Lalitpur Nagar Panchayat Pilot Program Report The UMN Shanta Bhawan Hospital 1972; brochure.