Lepr Rev (1984) 55, 321-325

Editorial

LEPRA'S ELECTIVE PERIOD STUDENT PROGRAMME, 1973–1983

All medical schools in the United Kingdom include in their curriculum a so-called Elective Period (EP) during the fourth or fifth clinical year, in which the student is free to choose the subject for study as well as the place of study. With readily available air travel many students now go abroad for the EP, often to America or Canada to continue and compare clinical training at medical schools there. Others, in complete contrast, use the EP as a unique opportunity to visit and study health and living conditions and tropical diseases in Third World countries.

LEPRA's EP student programme stemmed from the recommendation in 1973 of their Medical Advisory Board (MAB) that funds should be made available to assist UK medical students who genuinely wished to pursue their EP in the Third World and undertake an approved leprosy project. The MAB's request for funds was to ensure coverage of air fares to the Third World, bearing in mind the small, if any, grants from the medical schools. Furthermore, the MAB considered that such students could make a particularly valuable contribution to leprosy by carefully co-ordinating their projects with on-going programmes or problems under study in the field of leprosy. On this basis, LEPRA's EP student programme was started in 1973 for a limited trial period. Although within the first 5 years only some 13 EP students had been awarded a LEPRA grant, the objectives of the programme were so clearly beneficial to these students as well as to the field of leprosy that LEPRA has continued, and increased, their support of EP students. The programme has been in operation now for 10 years, and in this editorial I will summarize the management and achievements during this period.

Selection of students for the EP awards has, throughout, been the responsibility of LEPRA's Medical Advisory Board (MAB) and their initial selection is judged on the applicant's proposal, *curriculum vitae* and tutor's confidential report. The final selection is decided by interview with the Chairman and/or other members of the MAB. The level of the individual's LEPRA award is determined by the air fare and local subsistence against any other grants or finances available to the student, and with the onus on the student to find the cheapest available air fare.

322 R J W Rees

Table. Number of elective period students and location of project by region and country

Region	Country
Africa (18):	Botswana 1; Egypt 1; Ethiopia 5; Ivory Coast 1; Kenya 2; Malawi 1; Nigeria 1; Tanzania 3; Uganda 2: Zambia 1
S.E. Asia (69):	Bangladesh 1; India 52; Nepal 12; Sri Lanka 2; Thailand 2
S. America (6): W. Pacific (5):	Bolivia 2; Brazil 2; Guyana 1; Venezuela 1 Australia 1; Borneo 1; Malaya 3
Total: 98	

In the second 5 years LEPRA's grant has been substantially increased, providing support for 15–20 students per year. Over the 10 years, 98 students (54 male and 44 female) have been awarded LEPRA grants covering a wide range of leprosy projects undertaken in 22 countries (see Table), all of which have been successfully completed. The most pleasing and encouraging feature of the programme has been the motivation, diversity of interests and high academic achievements of the students. With 14 of the successful applicants having taken a B.Sc. before going on to their clinical studies, the subject of the degree had influenced some in their choice of studies, to include more specialized projects relating to the pathology, microbiology, immunology, neurology (including electron microscopy), pharmacology and psychology of leprosy. With the overall responsibility of the MAB for the programme, their contributions have been concerned with:

1 advice and help to the student in drafting a suitable and feasible protocol for the project, bearing in mind that most EPs are limited to 7–9 weeks overseas;

2 the selection and acceptance of centres overseas most appropriate to the project;

3 provision of specialized training, equipment or reagents relevant to the project; and

4 the allocation of EP students to assist in current research programmes or problems currently under review in the field.

For the students, the programme has been successful and deeply appreciated since it has provided all 98 students with the opportunity of visiting and working in many different Third World countries, with the added satisfaction of completing a project of their own design or taking part in, and contributing to, studies designed to improve the treatment and control of leprosy. While these latter objectives were anticipated by the MAB in their recommendations to LEPRA for initiating an EP student programme, they have been more than fully substantiated. Furthermore, 22 of the student projects have resulted in official publications as collaborative authors or as single authors (8) and these are listed in the references, with the student's name identified by an asterisk.

The acceptance for publication of 23 papers resulting from the students' projects by leprosy journals, including 5 papers accepted by specialized non-leprosy journals, is a tremendous achievement and represents an independent assessment of the high quality and current relevance of the students' projects and the success of LEPRA's EP programme. However, this wealth of publications resulting from the programme is an unexpected, but pleasing, bonus, since the essential objective of the programme was to interest medical students in leprosy by co-ordinating their projects with on-going programmes in the field or new developments, designed to improve the treatment of patients and the control of leprosy. Over the 10 years our student projects have contributed significantly to these broader objectives. For example, all the preliminary assessments and surveys on the sensitivity and application under field conditions of the dapsone/creatinine urine test as developed by Ellard, were undertaken by our students as part of their projects. There were such studies on patients in leprosy control programmes in parts of Africa and India.¹⁻⁴ Other students have undertaken field studies in connection with Ellard's studies on the pharmacology and toxicity of antileprosy drugs and the use of isoniazid as a safe and sensitive marker.⁵⁻⁷ Similarly, 14 students have undertaken projects in support of Stanford's extensive and world-wide skin-test surveys using various mycobacterial antigens. These have included areas in India, Nepal and Sri Lanka, and 3 have resulted in publications.⁸⁻¹⁰ More recently, 12 of our students have taken part in ffytche's computer-based collection of ocular complications associated with leprosy in patients in different parts of the world.¹¹ To date, their surveys have covered some 600 patients from centres in Brazil, India, Kenya, Nepal, Thailand and Uganda.

More specialized projects, usually determined by the student's particular interest, which have resulted in publications, include studies on the oral and nasal discharge of *Mycobacterium leprae*;^{12,} autonomic nerve functions and sensory testing;^{14, 15} deformities related to treatment²⁰ and several studies on the immunological aspects of leprosy related to lepromin reactions^{16, 17} and cellular²² and antibody^{23, 24} responses in different types of leprosy.

The other very considerable contribution by the students has been concerned with the treatment and control of leprosy. Several students have assisted busy and inadequately staffed control centres in going through their treatment records to identify potentially dapsone-resistant patients. Others have helped even in initiating or improving treatment programmes,¹⁸ particularly with the introduction of multidrug therapy (MDT). Very recently, LEPRA has encouraged students to determine how well MDT has been introduced into control programmes in different parts of the world, and its acceptance by the patients.

324 R J W Rees

There are already two publications on this aspect.^{19, 21} Likewise, some students have studied the feasibility of integrating leprosy control into primary health care programmes.²²

Finally, perhaps the most rewarding outcome of our EP student programme is that 4 of our earlier students, after qualifying, have already embarked on further training for a career in some aspect of tropical medicine.

Clinical Research Centre Harrow, Middlesex HA1 3UJ **RJWREES**

References

- ¹ Ellard GA, Gammon PT, Harris JM.* The application of urine tests to monitor the regularity of dapsone self-administration. *Lepr Rev*, 1974; **45**: 224–34.
- ² Low SJM,* Pearson JMH. Do leprosy patients take dapsone regularly? *Lepr Rev*, 1974; **45**: 218–23.
- ³ Cates CJ.* An assessment of dapsone self-administration in Gudiyathan Taluk. *Lepr Rev*, 1981; **52:** 55–64.
- ⁴ Davies RA,* Ng YY.* Dapsone compliance in North-East India. Lepr Rev, 1981; 52: 51-3.
- ⁵ Ellard GA, Greenfield C.* A sensitive urine-test method for monitoring the ingestion of isoniazid. J Clin Path, 1977; 30: 84–7.
- ⁶ Jenner PJ, Ellard GA, Gruer PJK,* Aber VR. A comparison of the blood levels and urinary excretion of ethionamide and prothionamide in man. J Antimicrob Chemother, 1984; 13: 267–77.
- ⁷ Moore VJ.* A review of side-effects experienced by patients taking clofazimine. *Lepr Rev*, 1983; 54: 327–35.
- ⁸ Nye P, Price JE,* Revankar CR, Rook GAW, Stanford JL. The demonstration of two types of suppressor mechanism in leprosy patients and their contacts by quadruple skin-testing with mycobacterial reagent mixtures. *Lepr Rev*, 1983; **54**: 9–18.
- ⁹ Shield MJ, Welsh L.* Two patterns of skin-test response to soluble armadillo-derived *M. leprae* reagents; their relevance in three different forms of tuberculoid leprosy. Abstract 11/106 XII, International Leprosy Congress, New Delhi, February 1984.
- ¹⁰ Morton A,* Nye P, Rook GAW, Samuel N, Stanford JL. A further investigation of skin-test responsiveness and suppression in leprosy patients and healthy school children in Nepal. *Lepr Rev*, 1984; 55: 273–84.
- ¹¹ ffytche TJ. A computer form to aid in the collection of data on the ocular complications of leprosy. *Lepr Rev*, 1983; **54**: 271–81.
- ¹² Hubscher S,* Girdhar BK, Desikan KV. Discharge of *Mycobacterium leprae* from the mouth in lepromatous leprosy patients. *Lepr Rev*, 1979; **50**: 45–50.
- ¹³ Green CA,* Katoch VM, Desikan KV. Quantitative estimation of *Mycobacterium leprae* in exhaled nasal breath. *Lepr Rev*, 1983; **54**: 337–40.
- ¹⁴ Boyle A,* Ramu G. Assessment of cutaneous autonomic nerve functions in leprosy. *Leprosy in India*, 1982; **54:** 518–24.
- ¹⁵ Lewis S.* Reproducibility of sensory testing and voluntary muscle testing in evaluating the treatment of acute neuritis in leprosy patients. *Lepr Rev*, 1983; **54:** 23–30.
- ¹⁶ Price J,* Davis M,* Ramu G. Comparison of the reaction to Dharmendra antigen in the normal skin and in the lesions of leprosy patients. *Leprosy in India*, 1979; **51**: 87–95.

- ¹⁷ Mackay IG,* Sengupta U, Ghei SK, Sinha S, Ramu G. Immune status of subsided cases of tuberculoid (TT) and borderline tuberculoid (BT) leprosy. *Leprosy in India*, 1982; **54:** 653–63.
- ¹⁸ Berczy JJ, Ernst C, Moore KP.* Leprosy in Ngamiland. *Botswana Epidem Bull*, 1983; **4**: 63–7.
- ¹⁹ Riley DN.* Treatment of leprosy in rural India. *Lepr Rev*, 1984; **55**: 397–402.
- ²⁰ Price JE.* A study of leprosy patients with deformities, and the implications for the treatment of all leprosy patients. *Lepr Rev*, 1983; **54**: 129–37.
- ²¹ Birch MC.* Leprosy treatment in Nepal with multidrug regimens. Lepr Rev, 1984; 55: 255-64.
- ²² Baldwin S.* Leprosy and primary health care in Bangladesh. Lepr Rev, 1982; 53: 236-8.
- ²³ Myrvang B, Godal T, Feek CM,* Ridley DS, Samuel DR. Immune response to *Mycobacterium leprae* in indeterminate leprosy patients. *Acta path. microbiol. scand.* (Section B), 1973; 81: 615–20.
- ²⁴ Myrvang B, Feek CM,* Godal T. Antimycobacterial antibodies in sera from patients throughout the clinico-pathological disease spectrum of leprosy. *Acta path. microbiol. scand.* (Section B), 1974; 82: 701-6.

* Denotes elective period student