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Laboratory Diagnosis of HIV Opportunistic Infections

*Report of an Intercountry Training Workshop
Bangkok, 13 - 17 December 1999*

WHO Project: ICP THC 001



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1. INTRODUCTION

An Intercountry Training Workshop on Laboratory Diagnosis of HIV Opportunistic Infections was held in Bangkok, from 13-17 December 1999. Thirteen participants from seven Member Countries of the WHO South-East Asia Region and three observers from the host country participated in the Workshop, which was assisted by experts from India, Thailand, the Regional Office and WR Thailand. The Programme and the List of Participants are at Annexes 1 and 2 respectively.

2. OBJECTIVES

The objectives of the Workshop were:

- (1) To review the status and methods being used to diagnose common HIV opportunistic infections in the Member Countries;
- (2) To impart hands-on training on standardized methodology, including collection, transportation and processing of samples of common opportunistic infections;
- (3) To develop strategies and a plan for further training at the national level, and
- (4) To identify country needs for WHO technical and material support in laboratory diagnosis.

3. INAUGURAL SESSION

Dr Somsong Rugpoa, Director-General, Department of CDC, Ministry of Public Health, Thailand, inaugurated the Workshop. Dr Sudarshan Kumari, Regional Adviser, Blood Safety and Clinical Technology, SEARO, read out the Regional Director's address. In his address, the Regional Director took note of the alarming scenario of opportunistic infections in HIV/AIDS in the Region and stressed the need for appropriate training of laboratory staff in early diagnosis of these infections for timely management of cases. He was categorical while stating that in spite of the fact that the tests required to diagnose these infections were simple and feasible, these were not being carried out in most countries of the Region. It could be, he stated, because of the lack of infrastructure and training.

4. OVERVIEW OF THE TRAINING PROGRAMME

The Workshop focused on laboratory knowledge of HIV diagnosis and detection of opportunistic infections in HIV-infected patients. The training approach was to deliver lectures and to conduct workshops at the workplace. The participants had the opportunity to observe and practise methods for the detection of HIV, bacterial, fungal and parasitic opportunistic infections.

Participants were provided with Standard Operating Procedures, bench aids and training materials drafted by a group of experts from Thailand with the help of experts from India, Myanmar and Sri Lanka, in close collaboration with WHO.

Experiences of experts from various fields, e.g., university hospitals, general hospitals who took part in the training, were shared through group work and plenary discussions. (see Annex 1)

On conclusion of the training in different fields, an evaluation of each of the participant was carried out. A consolidated report was prepared which indicates the achievement level of the participants.

5. CONCLUSION

The technical contents of the training and the training methodologies were closely observed and evaluated by the five Technical Advisers. All the objectives planned for the Workshop were achieved. The success level of the training was laudable and appreciated by all the participants. They were trained to an extent to be able to train other technicians in their respective country.

The following lessons were learnt:

- Selection of an appropriate training methodology is essential to achieve the objectives.
- Sharing of the experiences of laboratory facilities from different countries and from different levels of health care settings, e.g., university hospitals, general hospitals and district hospitals, could contribute to the success of the training.
- For the next training course, the programme, content areas and the administrative aspects will be modified and strengthened.

6. RECOMMENDATIONS

No specific recommendations were made. However, the participants felt that there was a need for such training courses in different specialities in their respective countries so that a larger number of technicians could receive training. The recommended fields were, HIV opportunistic infections, with special reference to microbiology, parasitology, virology and mycology. Since the fields are very specific, separate training in each respective field needs to be focused for experts handling such infections. The need for the participation of a WHO expert in such training was emphasized. Regional Adviser, BCT assured the Workshop of WHO's continued support.

TRAINING EVALUATION

1. Achievement of my personal objectives	7.9
2. Relevant knowledge and skills gained in the training with my job	7.7
3. Achievement of training objectives	7.9
4. Length of the training programme	7.7
5. Duration provided for each content areas	8.0
6. Effectiveness of facilitators	9.2
7. Arrangement at training venue and facilities	8.8
8. Arrangements at training accommodation or hotels	8.4
9. Adequacy and quality of lunch, dinner and coffee	9.2
10. Services provided by training staff	9.4
11. Effectiveness of training coordinator	9.3
12. Overall training programme	8.8

Annex 1

PROGRAMME

Monday, 13 December 1999

0830 - 0900	Registration	
0900 - 1000	Opening Ceremony Pre-test	
1030 - 1115	Overview of HIV-OIs	Dr Somsit
1115 - 1200	Laboratory Safety & UP	Dr Chantapong
1300 - 1330	Good Laboratory Practice	Ms Sasiwimol
1330 - 1430	HIV Diagnosis Measurement of CD4 T-lymphocyte	Dr Suda Mrs Sirirat
1500 - 1630	Demonstration	
	<ul style="list-style-type: none">• HIV Diagnosis• Measurement of CD4 T-Lymphocyte	Dr Suda Mrs Sirirat

Tuesday, 14 December 1999

0830 - 0900	Diagnosis of Viral OI	Dr Sontana Dr Prasert
0900 - 1000	Demonstration	
	<ul style="list-style-type: none">• Viral OI	Dr Sontana Dr Prasert
1030 - 1200	Diagnosis of Bacterial OI	
	<ul style="list-style-type: none">• Clinical Aspect of TB & MAC• Lab Diagnosis of TB & MAC	Dr Pasakorn Dr Paramasivan
1300 - 1430	Demonstration	
	<ul style="list-style-type: none">• Lab Diagnosis of TB & MAC	Dr Paramasivan Dr Angkana Mr Boonchuay Mr Somsak
1500 - 1630	Demonstration (..continued)	
	<ul style="list-style-type: none">• Lab Diagnosis of TB & MAC	

Wednesday, 15 December 1999

0830 - 0900	Lab Diagnosis of Non TB Nocardia and Rhodococcus	Dr Ariya
0900 - 1000	Demonstration of Non TB	Dr Angkana Dr Ariya Mr Boonchuay

1030 - 1200	Diagnosis of Fungal OI <ul style="list-style-type: none">• Yeast• Dimorphic Fungi	Dr Uma Dr Angkana
1300 - 1430	Demonstration <ul style="list-style-type: none">• Yeast• Dimorphic Fungi	Dr Uma Dr Angkana Mr Boonchuay Mrs Monthaswat
1500 - 1630	Demonstration (continued) <ul style="list-style-type: none">• Yeast• Dimorphic Fungi	

Thursday, 16 December 1999

0830 - 1000	Diagnosis of Parasite OI <ul style="list-style-type: none">• Coccidial Parasite• Toxoplasma, Microsporidia, Strongyloides• PCP, Isospora	Dr Mahajan Dr Chutatip Mr Boonchuay
1030 - 1200	Demonstration <ul style="list-style-type: none">• Coccidial Parasite• Toxoplasma, Microsporidia, Strongyloides• PCP, Isospora	Dr Mahajan Dr Chutatip Mr Boonchuay Mrs Monthaswat
1300 - 1430	Demonstration (..continued) <ul style="list-style-type: none">• Coccidial Parasite• Toxoplasma, Microsporidia, Strongyloides• PCP, Isospora	
1500 - 1630	Demonstration (..continued) <ul style="list-style-type: none">• Coccidial Parasite• Toxoplasma, Microsporidia, Strongyloides• PCP, Isospora	

Friday, 17 December 1999

0830 - 1000	Discussion and Plan	Dr Sudarshan Kumari Dr Chantapong Wasi Dr R.C. Mahajan Dr Uma Banerjee Dr C.N. Paramasivan Participants
1030 - 1115 1115 - 1200	Discussion and Plan (..continued) Post-test Closing	

Annex 2

LIST OF PARTICIPANTS

Mr Tshering Dorji
Laboratory Technician
Mongar Research Referral Hospital
Thimphu

Dr (Mrs) Archana Ayyuagari
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Department of Microbiology
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Sulianti Saroso Hospital
(Regional Referral Lab for HIV/AIDS)
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Mr Prayuth Kaewmalang
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Observers

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Temporary Advisers

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WHO Secretariat

Dr Sudarshan Kumari
RA-BCT

Dr Ying-Ru Lo
MO-STD/AIDS
WHO Thailand

Summary of Daily Training Evaluation, December 13, 1999

No.	Topic	Excellent	Very good	Good	Fair	Unsatisfactory	No answer	Total
1	Understanding on objectives of each SOP	3	3	7	0	0	0	13
2	Obtaining new knowledge	2	3	7	1	0	0	13
3	Obtaining new skill	2	2	5	2	0	2	13
4	Discussion on application of new knowledge	1	3	7	1	0	1	13
5	Training methodology or techniques used	4	1	5	0	0	3	13
6	Presentation of the topics	5	2	6	0	0	0	13
7	Use of slides, transparencies	4	3	4	1	0	1	13
8	Interaction among participants	1	2	7	1	0	2	13
9	Chance for participants to explore more the content	1	4	7	0	0	1	13
10	Group work	2	5	2	0	0	4	13
11	Individual work	0	4	3	0	0	6	13
12	Lunch	6	4	1	1	0	1	13
13	Coffee break	6	3	3	0	0	1	13
14	Services provided by training staff	8	3	1	0	0	1	13

Summary of Daily Training Evaluation, December 14, 1999

No.	Topic	Excellent	Very good	Good	Fair	Unsatisfactory	No answer	Total
1	Understanding on objectives of each SOP	1	5	7	0	0	0	13
2	Obtaining new knowledge	0	7	5	1	0	0	13
3	Obtaining new skill	1	5	6	1	0	0	13
4	Discussion on application of new knowledge	3	3	6	1	0	0	13
5	Training methodology or techniques used	4	2	6	1	0	0	13
6	Presentation of the topics	4	5	4	0	0	0	13
7	Use of slides, transparencies	5	3	5	0	0	0	13
8	Interaction among participants	2	2	7	2	0	0	13
9	Chance for participants to explore more the content	1	3	7	1	0	1	13
10	Group work	1	3	6	1	0	2	13
11	Individual work	1	3	8	1	0	0	13
12	Lunch	5	5	2	1	0	0	13
13	Coffee break	6	5	2	0	0	0	13
14	Services provided by training staff	9	4	0	0	0	0	13

Summary of Daily Training Evaluation, December 15, 1999

No.	Topic	Excellent	Very good	Good	Fair	Unsatisfactory	No answer	Total
1	Understanding on objectives of each SOP	3	9	3	0	0	0	15
2	Obtaining new knowledge	2	10	3	0	0	0	15
3	Obtaining new skill	2	8	4	0	0	1	15
4	Discussion on application of new knowledge	5	7	2	1	0	0	15
5	Training methodology or techniques used	7	6	2	0	0	0	15
6	Presentation of the topics	7	6	2	0	0	0	15
7	Use of slides, transparencies	8	4	1	0	0	2	15
8	Interaction among participants	3	6	3	0	0	3	15
9	Chance for participants to explore more the content	3	6	6	0	0	0	15
10	Group work	4	4	6	0	0	1	15
11	Individual work	1	7	5	0	0	2	15
12	Lunch	10	3	2	0	0	0	15
13	Coffee break	9	3	3	0	0	0	15
14	Services provided by training staff	11	3	0	0	0	1	15

Summary of Daily Training Evaluation, December 16, 1999

No.	Topic	Excellent	Very good	Good	Fair	Unsatisfactory	No answer	Total
1	Understanding on objectives of each SOP	3	7	1	0	0	0	11
2	Obtaining new knowledge	2	5	4	0	0	0	11
3	Obtaining new skill	0	6	5	0	0	0	11
4	Discussion on application of new knowledge	3	3	5	0	0	0	11
5	Training methodology or techniques used	3	4	3	1	0	0	11
6	Presentation of the topics	5	5	1	0	0	0	11
7	Use of slides, transparencies	5	5	0	0	0	1	11
8	Interaction among participants	3	4	2	1	0	1	11
9	Chance for participants to explore more the content	0	8	3	0	0	0	11
10	Group work	1	6	1	1	0	2	11
11	Individual work	2	5	3	1	0	0	11
12	Lunch	6	4	1	0	0	0	11
13	Coffee break	6	3	2	0	0	0	11

