

Service Work of the Department of Virology

OBJECTIVE : To provide local institutions with laboratory information not available elsewhere in Thailand, using the specialized procedures routinely performed in the virology laboratory.

BACKGROUND : The virology department in its research activities uses certain laboratory procedures which are not performed in most institutions. Upon request from outside organizations, the laboratory has undertaken a limited service function, providing studies for quality control purposes and for the clinical management of patients.

METHODS : In certain cases, specialized assays performed routinely in the department of virology were applied to specimens from non-protocol sources derived from inside or outside of the laboratory. These assays were broken down into six groups for the purposes of analysis.

1. Arbovirus isolation (dengue and chikungunya isolations)
2. Arbovirus serology (dengue, Japanese encephalitis virus and chikungunya serologies)
3. Non-arbovirus isolation (largely polio and influenza isolations)
4. Non-arbovirus serology (largely polio serology)
5. Hepatitis B surface antigen assay (screening by the Immuno-electro-osmophoresis test)
6. Immunological tests (radial immune assays for IgG, IgM and complement factors)

RESULTS : A breakdown of the tests performed by the department of virology on non-protocol specimens is shown in Table 1.

The department has provided significant clinical or quality control services to six institutions outside of the laboratory as well as occasional services to the American Embassy Medical Unit and other organizations throughout Thailand. The laboratory honored a request in January 1977 by the National Blood Bank, Central Institute of Pathology, Royal Thai Army Hospital, to train personnel in techniques for the detection of Hepatitis B surface antigen (HB_sAg), with the help of these trainees, the laboratory provided HB_sAg screening on blood donors' sera until the tests could be commenced in the Blood Bank.

Table 1. Non-Protocol Studies Provided by the Department of Virology

	Rajvithi Hospital	Hospital of Trop. Med.	Police Hospital	Children's Hospital	Royal Thai Army Hospital	Chiang Mai Hospital	AFRIMS Support	Other ^a	Total
Arbovirus Isolation	-	-	-	32 ^b (71.1)	6 (13.3)	-	4 (8.9)	3 (6.6)	45
Arbovirus Serology	12 (1.1)	23 (5.6)	57 (13.9)	164 (40.1)	58 (14.2)	41 (10.8)	43 (10.5)	11 (2.7)	409
Non-Arbovirus ^c Isolation	2 (1.1)	5 (2.8)	3 (1.4)	93 (52.2)	6 (3.4)	9 (5.1)	41 (23.0)	19 (10.7)	178
Non-Arbovirus Serology	1 (0.5)	5 (2.7)	2 (1.1)	44 (23.5)	70 (37.4)	32 (17.1)	16 (8.6)	17 (9.1)	187
HB _s Ag Assay (IEOP ^e)	3 (0.3)	4 (0.4)	-	9 (0.9)	934 ^d (90.4)	-	-	83 (8.0)	1033
Immunological tests	-	-	-	1 (1)	99 (98)	-	-	1 (1)	101
Total	18 (0.9)	37 (1.9)	62 (3.2)	343 (17.6)	1173 (60.1)	82 (4.2)	104 (5.3)	134 (6.9)	1953

^a Includes the American Embassy Medical Unit, The Prince of Songkla University, and occasional requests from other institutions.

^b Number of tests (percent of total)

^c Includes Influenza Surveillance

^d Majority of samples from the National Blood Bank, Central Institute of Pathology, Royal Thai Army Hospital. Performed with technical help provided by the National Blood Bank.

^e Immuno-electrosmoporesis.