CHAPTER IV
RESULTS

This chapter provides the results of the study according to the research methodology which was presented in chapter III. It consists of 8 parts of the results as follow:

4.1 Demographic data
4.2 Treatment data
4.3 Knowledge of disease and medical data
4.4 Self-efficacy in taking antiretroviral data
4.5 Social support data
4.6 Physician-patient relationship data
4.7 Adherence data
4.8 Analyzing the relationship between adherence and the factors affecting patient adherence to ARV medication

4.1 Demographic data

The samples in this study were 200 HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital.

Demographic data in this study such as gender, age, status, educational level, occupation and income were described in tables 4.1 and 4.2

Table 4.1 Demographic data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Demographic Data	No. of Pts.	Percent (%)
Gender		
Male	106	53.0
Female	94	47.0
Status		
Single	82	41.0
Married	87	43.5
Widowed/ divorce / separate	31	15.5
Education		
No study	4	2.0
Primary school	71	35.5
Secondary school	57	28.5
High school	34	17.0
Diploma	8	4.0
Bachelor degree	24	12.0
Master degree or Ph.D. degree	2	1.0
Occupation		
Un-employed	16	8.0
Agriculture	1	0.5
Employee	117	58.5
Housewife	19	9.5
Government official/ state enterprise	2	1.0
Business Owner	36	18.0
Others	9	4.5

Income		
< 5,000 Baht/month	84	42.0
5,000-10,000 Baht/month	75	37.5
10,001-15,000 Baht/month	20	10.0
15,001-20,000 Baht/month	13	6.5
>20,000 Baht/month	8	4.0

Table 4.2 Demographic data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Demographic Data	Minimum	Maximum	Average
age	23	61	38.20

Of 200 HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital, majority of the samples were male, 106 cases (53 percent), were married, 87 cases (43.5 percent), were completed primary school, 71 cases (35.5 percent), were employee, 117 cases (58.5 percent), had an income less than 5,000 baht per month, 84 cases (42 percent). The average of age of HIV infected/AIDS patients was 38.20 years-old, minimum of age was 23 years-old and maximum of age was 61 years-old.

4.2 Treatment data

Treatment data in this study including the right of treatment, cause of infection, duration of treatment, adverse event, dose frequency and regimen were described in tables 4.3, table 4.4 and table 4.5

Table 4.3 Treatment data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Treatment Data	No.of Pts.	Percent (%)
Right of treatment		
Out of pocket	2	1.0
CSMBS(Civil servant medical benefit scheme)	2	1.0
SSS (Social security scheme)	54	27.0
UC (Universal coverage)	141	70.5
Other (na.)	1	0.5
Cause of infection		
Homosexual transmission	22	11.0
Heterosexual transmission	131	65.5
Needle	19	9.5
Other	28	14.0
Adverse event		
Adverse event	37	18.5
No adverse event	163	81.5
Dose frequency		
One time/day	53	26.5
Two times/day	141	70.5
Three times/day	6	3.0

Table 4.4 Treatment data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Treatment Data	Minimum	Maximum	Average
Duration of treatment	6 month	204 month	36.84 month

From table 4.3: Treatment data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital showed that majority of the samples were in universal health care coverage program, 141 cases (70.5 percent), contacted infection by heterosexual transmission, 131 cases (65.5 percent), no adverse event from antiretroviral during last 1 month, 163 cases (81.5 percent), at present the patients took ARV medicines two times/day, 141 cases (70.5 percent). Table 4.4 shows minimum, maximum and average of duration of ARV treatment. The results showed that HIV-infected/AIDS patients had an average of duration of treatment of 36.84 months or about 3 years. Minimum duration of treatment was 6 months and maximum duration of treatment was 204 months or about 17 years.

Table 4.5 Regimen of HIV-infected/AIDS

Regimen	No.of Pts.	Percent (%)
d4T+3TC+NVP	17	8.5
3TC+TDF+NVP	4	2.0
3TC+AZT+NVP	77	38.5
3TC+TDF+EFV	49	24.5
3TC+d4T+EFV	19	9.5
LPV+RTV	2	1.0
3TC+AZT+EFV	19	9.5
TDF+3TC+RTV+ATV	8	4.0
3TC+DDI+ LPV+RTV	1	0.5
3TC+TDF+d4T	1	0.5
ABC+3TC+EFV	1	0.5

AZT+3TC+ LPV+RTV	1	0.5
TDF+3TC+LPV+RTV	1	0.5
Total	200	100.0

d4T = stavudine, 3TC = lamivudine, NVP = nevirapine, TDF = tenofovir, AZT = zidovudine, EFV = efavirenz, LPV= lopinavir, RTV = ritonavir, ATV =atazanavir , DDI =didanosine, ABC=abacavir

During the data collection period, 77 patients (38.5%) used 3TC+AZT+NVP or (GPOvirZ).

4.3 Knowledge of disease and medical data

To assess the knowledge of the disease and the medical data of HIV-infected/AIDS patients, the patients were asked to answer the questions related to the knowledge of the disease and the medical which was applied from study of Suttinee Tunpongjaroen [56]. There were 15 questions, so the total scores were 15 scores. The results of the knowledge of disease and medical treatment of HIV-infected/AIDS patients were described in tables 4.6 and 4.7.

Table 4.6 Knowledge of disease and medical data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Knowledge of disease and medicine data (total scores = 15)	Minimum	Maximum	Average
scores	6	15	11.89

Table 4.7 Knowledge of disease and medical data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Question "Knowledge of disease and medicine data"	Answer correct (No.of Pts.)	Answer correct (Percent :%)
1. "AIDS was caused by Human Immunodeficiency Virus (HIV) "	193	96.5
2. "AIDS can contact by sexual transmission only "	127	63.5
3. "AIDS can contact from blood "	182	91.0
4. "AIDS cannot contact from mother transmission to children "	147	73.5
5. "AIDS can cure "	168	84.0
6. "CD4 is the predictor of immune status "	166	83.0
7. "If CD4 increase OIs will decrease "	173	86.5
8. "While you take medicine and you have mild nausea or/and vomiting , you should stop taking medicine "	127	63.5
9. "GPOvir S30 can cause atrophy "	116	58.0
10. "While you take medicine and you have mild rash and itching , you should stop taking medicine "	101	50.5
11. "You can stop medicine if you feel better "	180	90.0
12. "You have to take medicine on time according to physicians' instruction "	198	99.0
13. "You are not required to take medicine completely according to physicians' instruction "	191	95.5
14. "If you take medicine irregularly you may be have drug resistance "	191	95.5
15. "If you have drug resistance in first regimen, you can have drug resistance in the second regimen "	126	63.0

From table 4.6, the evaluation of the knowledge of the disease and medical data of HIV-infected/AIDS patient showed that patients had an average of the knowledge score at 11.89 scores. The maximum score was 15, the minimum score was 6. From table 4.7 we found that HIV-infected/AIDS patients had the most correctly answered in item 12, which asked "you have to take medicine on time depending on physician instruction" 198 cases (99 percent). The second most correctly answered item is item 1 "AIDS was caused by Human Immunodeficiency Virus (HIV)", 193 cases (96.5 percent). The correct scores of other questions were, item 13 "you are not required to take medicine completely according to physicians' instruction ", 191 cases (95.5 percent), item 14 "if you take medicine irregularly you may be have drug resistance ", 191 cases (95.5 percent), item 3 "AIDS can contact from blood ", 182 cases (91 percent), item 11 "you can stop medicine if you feel better ", 180 cases (90 percent), item 7 "if CD4 increase, OIs will decrease", 173 cases (86.5 percent), item 5 "AIDS can cure ", 168 cases (84 percent), item 6 "CD4 is the predictor of immune status ", 166 cases (83 percent), item 4 "AIDS cannot contact from mother transmission to children ", 147 cases (73.5 percent), item 2 "AIDS can contact by sexual transmission only ", 127 cases (63.5 percent), item 8 "while you take medicine and you have mild nausea or/and vomiting, you should stop taking medicine ", 127 cases (63.5 percent), item 15 "if you have drug resistance in first regimen, you can have drug resistance in the second regimen ", 126 cases (63 percent), item 9 " GPOvir S30 can cause atrophy ", 116 cases (58 percent), item 10 "while you take medicine and you have mild rash and itching, you should stop taking medicine ", 101 cases (50.5 percent), respectively.

The 25 and 75 percentile of the score were used to classify the level of knowledge of the disease and medical data. The results showed that there were 50 cases, (25 percent) who were classified into low knowledge level. There were 65 cases, (32.5 percent) who were classified into moderate knowledge level. There were 85 cases, (42.5 percent) who were classified into high knowledge level as follow table 4.8

Table 4.8 Knowledge level

Knowledge level	No.of Pts.	Percent (%)
low	50	25.0
moderate	65	32.5
high	85	42.5

4.4 Self-efficacy in taking antiretroviral data

To assess the self-efficacy in taking antiretroviral the HIV-infected /AIDS patients were asked about their confidence in difference situation. The self-efficacy evaluation tools was tested to check the reliability, the cronbach's alpha was 0.896. The patients were asked to rate their confidence to take ARV medications in 12 different situations. The questionnaire was applied from study of Smith, Rublein, Marcus and others [59]. Patients were asked to rank their confidence to take medicine on time and regularly in each specific situation from least confidence (1) to highest confidence (5) based on Likert scale concept. The results of evaluation with self–efficacy to take antiretroviral of HIV-infected/AIDS were described in table 4.9 and table 4.10.

Table 4.9 Self-efficacy in taking antiretroviral drugs of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Self-efficacy in take antiretroviral data (total scores = 60)	Minimum	Maximum	Average
scores	16	60	49.47

Table 4.10 Self-efficacy in taking antiretroviral data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

item	Question of Self-efficacy in took antiretroviral data "You had self-efficacy to take ARV, when you in each specific situation"	Average (scores) (total scores=5)
1	"When you are at home"	4.58
2	"Even though the pills may be big and difficult to swallow"	4.32
3	"When nobody reminds you about the time that you should take the medicine"	3.97
4	"During the weekend"	4.31
5	"When the medicine can cause mild side effects"	3.68
6	"When you feel healthy"	4.41
7	"When you are very sick"	3.77
8	"When you are in sorrow"	3.81
9	"While you have long trip"	4.00
10	"When you have to take ARV medicine in front of the people who do not know that you are infected"	3.74
11	"You can strict to your medicine schedule for the next 7 days"	4.36
12	"You can strict to your medicine schedule for the next 14 days"	4.39

From table 4.9, the evaluation of self-efficacy in taking antiretroviral of HIV-infected/AIDS patient showed that the average of the self-efficacy score was 49.47. The maximum self-efficacy score was 60, the minimum self-efficacy score was 16. From table 4.10, it was found that the self-efficacy score in each situation were, item 1 "when you are at home", 4.58 scores, item 6 " when you feel healthy ", 4.41 scores, item 12 " you can strict to your medicine schedule for the next 14 days ", 4.39 scores, item 11 "you can strict to your medicine schedule for the next 7 days " 4.36 scores, item 2 "even though the pills may be big and difficult to swallow", 4.32 scores, item 4 "during the weekend", 4.31 scores, item 9 "while you have a long trip", 4.00 scores, item 3 "when nobody reminds you about the time you should take the medicine", 3.97 scores, item 8 "when you are in sorrow", 3.81 scores, item 7 "when you are very sick", 3.77 scores, item 10 "When you have to take ARV medicine in front of the people who do not know that you are infected", 3.74 scores and to get mean minimum point is item 5 "when the medicine can cause mild side effects", 3.68 scores, respectively.

Using the 25 and 75 percentile to classify the level of self-efficacy in taking antiretroviral, the results showed that there were 46 cases, (23 percent) who were classified into low self-efficacy level. There were 103 cases, (51.5 percent) who were classified into moderate self-efficacy level. There were 51 cases, (25.5 percent) who were classified into high self-efficacy level as described in table 4.11

Table 4.11 Self-efficacy level

Self-efficacy level	No. of Pts.	Percent (%)
low	46	23.0
moderate	103	51.5
high	51	25.5

4.5 Social support data

The social support evaluation tool was tested to check the reliability; the cronbach's alpha was 0.957. The questionnaire was applied from study of Sherbourne

[60] and there was 10 items. Patients were asked to rank about weather there were someone who can support them in each situation or not, from none of the time (1) to all of the time (5) based on Likert scale concept. The results of evaluation with social support of HIV-infected/AIDS were described in table 4.12 and table 4.13.

Table 4.12 Social support data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Social support data (total scores = 50)	Minimum	Maximum	Average
scores	10	50	38.49

Table 4.13 Social support data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

item	Question of social support data	Average (scores) (total scores=5)
1	"You have someone to listen to you when you need to talk with"	3.74
2	"You have someone to give you good advice when you have a problem"	3.74
3	"You have someone to cheer you up when you are worried"	3.87
4	"You have someone who understands your health problem"	3.91
5	"You have someone to help you if you were confined to bed"	3.81

6	"You have someone to accompany you to visit the doctor if you needed"	3.59
7	"You have someone who love you "	4.05
8	"You have someone who make you feel relax"	3.99
9	"You have someone who can do something together with you enjoyable"	3.79
10	"You have someone to help you without expectation to get something from you "	4.03

From table 4.12, the evaluation of social support of HIV-infected/AIDS patient showed that patients had an average of the social support score at 38.49 scores. The maximum social support score was 50, the minimum social support score was 10. From table 4.13, it was found that HIV-infected/AIDS patients had the highest mean score in item 7 "you have someone who love you " 4.05 scores, item 10 "you have someone to help you without expectation to get something from you", 4.03 scores, item 8 "you have someone who make you feel relax ", 3.99 scores, item 4 "you have someone who understands your health problem", 3.91 scores, item 3 "you have someone to cheer you up when you are worried ", 3.87 scores, item 5 "you have someone to help you if you were confined to bed", 3.81 scores, item 9 "You have someone who can do something together with you enjoyable", 3.79 scores, item 2 "you have someone to give you good advice when you have a problem", 3.74 scores, item 1 "you have someone to listen to you when you needed", 3.74 scores and item 6 "you have someone to accompany you to visit the doctor if you needed", 3.59 scores respectively.

Using the 25 and 75 percentile to classify the level of social support, the results showed that there were 48 cases, (24 percent) who were classified into low social support level. There were 92 cases, (46.0 percent) who were classified into moderate social support level. There were 60 cases, (30.0 percent) who were classified into high social support level as was described in table 4.14.

Table 4.14 Social support level

Social support level	No.of Pts.	Percent (%)
Low	48	24.0
moderate	92	46.0
high	60	30.0

4.6 Physician-patient relationship data

The cronbach's alpha of the physician-patient relationship evaluation tool was 0.945. There were 15 questions, so the total scores were 75 scores. The questionnaire was applied from study of Schneider, Kaplan, Greenfield and others [61]. Patients were asked to rank about their relationship with healthcare provider, from poor (1) to excellent (5) based on Likert scale concept. The results of evaluation with physician-patient relationship of HIV-infected/AIDS were described in table 4.15 and table 4.16.

Table 4.15 Physician-patient relationship data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Physician-patient relationship data (total scores = 75)	Minimum	Maximum	Average
scores	18	75	60.25

Table 4.16 Physician-patient relationship data of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN Hospital

Item	Question of Physician-patient relationship data	Average (scores) (total scores=5)
1	"Healthcare providers suggest you what to do when there is an adverse event "	3.87
2	"Healthcare providers take care of you "	3.99
3	"Healthcare providers understand your worry about your health"	3.91
4	"Healthcare providers explain to you about the sexual activities"	4.01
5	"Healthcare providers ask you about stress in your life that may affect your health "	3.77
6	"Healthcare providers explain about ARV medication usage "	4.32
7	"Healthcare providers understand your problems in taking ARV medicine "	4.05
8	"Healthcare providers help you to solve your problems in taking ARV medicine "	3.90
9	"Healthcare providers get you to participate in selection of the medicine that you would prefer "	3.60
10	"Healthcare providers offer choices to your medicine and tell about the categories of medicines"	3.87
11	"Healthcare providers discuss the pros and cons of each choice with you "	3.99

12	"Healthcare providers are friendly "	4.20
13	"Healthcare providers answer clearly in your medicine and AIDS "	4.25
14	"Healthcare providers have knowledge and competency in treatment"	4.27
15	"You trust for health care providers' treatment"	4.38

From table 4.15, the evaluation of physician-patient relationship of HIV-infected/AIDS patient showed that patients had an average score of physician-patient relationship at 60.25. The maximum physician-patient relationship score was 75, the minimum physician-patient relationship score was 18. From table 4.16, it was found that the highest score of the patient provider relationship was in item 15 "You trust for health care providers' treatment ", 4.38 scores, item 6 "Healthcare providers explain about ARV medication usage ", 4.32 scores, item 14 "Healthcare providers have knowledge and competency in treatment ", 4.27 scores, item 13 "Healthcare providers answer clearly in your medicine and AIDS ", 4.25 scores, item 12 "Healthcare providers are friendly ", 4.20 scores, item 7 " Healthcare providers understand your problems in taking ARV medicine", 4.05 scores, item 4 "Healthcare providers explain to you about the sexual activities", 4.01 scores, item 2 "Healthcare providers take care of you ", 3.99 scores, item 11 "Healthcare providers discuss the pros and cons of each choice with you ", 3.99 scores, item 3 "Healthcare providers understand your worry about your health", 3.91 scores, item 8 "Healthcare providers help you to solve your problems in taking ARV medicine ", 3.90 scores, item 1 "Healthcare providers suggest you what to do when there is an adverse event ", 3.87 scores, item 10 "Healthcare providers offer choices in your medicine and tell about the categories of medicine ", 3.87 scores, item 5 "Healthcare providers ask you about stress in your life that may affect your health ", 3.77 scores and item 9 "Healthcare providers get you to participate in selection of the medicine that you would prefer ", 3.60 scores, respectively.

Using the 25 and 75 percentile to classify the level of physician-patient relationship, the results showed that there were 49 cases, (24.5 percent) who were classified into low physician-patient relationship level. There were 101 cases, (50.5 percent) who were classified into moderate physician-patient relationship level. There were 50 cases, (25.0 percent) who were classified into high physician-patient relationship level as follow in table 4.17

Table 4.17 Physician-patient relationship level

physician-patient relationship	No. of Pts.	Percent (%)
low	49	24.5
moderate	101	50.5
high	50	25.0

4.7 Adherence level of HIV-infected/AIDS patient

The evaluation tools about the adherence of HIV-infected/AIDS consists of self-report, visual analogue scale (VAS), pill identification test (PIT) and pill count which was applied from STEEL G studied[15].

1. Self-report was a series of questions where the patient's response was yes or no. Each question consisted of four items and asked about the patients' behaviors in taking ARV medicines.
2. Visual analogue scale (VAS) was a tool where patients were asked to rate their adherence behavior to their medication over the past four weeks. A line started from 0 to 10. The scale at 10 mean he or she took all medicine dosage and scale at 0 mean he or she missed all of the dosage.
3. Pill Identification Test (PIT) was a tool where the patients were asked to specify the number of pills per dose, time that the medications were taken and the additional information.

4. Pill count was a tool that the patients were asked about the remaining of medicine since the date of their last visit, then calculate percent adherence from the following formula:

% Adherence = (Dispensed – Returned) / (Expected to be taken) * 100

Example

The physician prescribed GPOvirZ 250 in the dosage regimen 2 times a day, for example, take 1 tab (8.00) 1 tab (20.00). The amount of ARV prescribed was 180 pills and the patient returned in the container was 14 pills:

% Adherence = (Dispensed – Returned) / (Expected to be taken) * 100

= (180-14)/ (180)*100

% Adherence = 92%

The details of each result from each tool (self-report, visual analogue scale (VAS), pill identification test (PIT) and pill count) were presented in table 4.18.

Table 4.18 The compliance results of each tool (self-report, visual analogue scale (VAS), pill identification test (PIT) and pill count)

Tools	No. of Pts.	Percent (%)
Self-report		
Self-report was No in all questions	161	80.5
Self-report was Yes in 1 question	33	16.5
Self-report was Yes in 2 or more questions	6	3.0
VAS		
VAS was 95% or more	142	71.0
VAS was 75-94%	48	24.0
VAS was Less than 75%	10	5.0
PIT		
patient knows dose, time and instructions	163	81.5
patient knows dose, time	33	16.5
patient knows dose only or confused	4	2.0
Pill count		
Pill count was 95% or more	176	88.0
Pill count was 75%-94%	17	8.5
Pill count was Less than 75%	7	3.5

From table 4.18, the results of each tool such as self-report, visual analogue scale (VAS), pill identification test (PIT) and pill count showed that number of the patients who answered No in all questions in self report tool was 161 cases (80.5 percent), the patients who had VAS at 95% or more was 142 cases (71.0 percent), the patient known dose, time and instructions was 163 cases (81.5 percent) and the pill count at 95% or more was 176 cases (88.0 percent).

The results of overall adherence were interpreted based on the concepts below: [15]

Self-report	No to all questions	Yes to 1 question	Yes to 2 or more questions
VAS	95% or more	75-94%	Less than 75 %
PIT-patient knows the…	Dose, time, and instructions	Dose and time	Dose only or confused
Pill count	95% or more	75%-94%	Less than 75%
Overall adherence	High	Moderate	Low

1. If all results appeared in the same column, e.g. self-report was All No, VAS was 95% or more, PIT was Dose, Time and instructions and pill count was 95% or more, then the overall level of adherence was "High".
2. If the results do not all line up in a single vertical column such as if the results were spread over two columns, took the adherence level of the right hand column as the estimated adherence e.g. self-report was yes to 2 or more questions, VAS was 75%-94 %, PIT was dose and time and pill count was 95% or more, then the overall level of adherence was "Low".
3. If the results were spread over three columns, then use the middle level of adherence e.g. self report was yes to 1 question, VAS was less than 75%, PIT was dose and time and pill count was 95% or more, then the overall level of adherence was "Moderate".

The results of the adherence level of HIV-infected/AIDS patients were described in table 4.19.

Table 4.19 The adherence level of HIV-infected/AIDS patients

Adherence level	No. of Pts.	Percent (%)
High	140	70.0
Moderate	42	21.0
Low	18	9.0
Total	200	100.0

Table 4.19 showed number of patients, percent, and adherence level of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN hospital. It was found that 140 cases (70 percent) of HIV-infected/AIDS had an adherence of a high level, 42 cases (21 percent) in had moderate level, and 18 cases (9 percent) had low adherence level

To classify the adherence of the HIV infected/AIDS patients, 2 conditions were used as described below.

1. If the patients had overall adherence at high level then the patient is adherence to ARV treatment.
2. If the patients had overall adherence at moderate or low then the patient is non-adherence to ARV treatment.

The adherence to ARV treatment of HIV-infected/AIDS patients in this study was presented in table 4.20

Table 4.20 The adherence to ARV treatment of HIV-infected/AIDS patients

Result of adherence	No. of Pts.	Percent (%)
non adherence	60	30.0
Adherence	140	70.0
Total	200	100.0

Table 4.20 shows number of patients, percent and adherence of HIV-infected/AIDS patients who took antiretroviral therapy at TAKSIN hospital. It was found that 140 cases (70 percent) of HIV-infected/AIDS patients adhered to ARV treatment, and 60 cases (30 percent) of HIV-infected/AIDS not adhered to ARV treatment.

4.8 Analytical the relationship between adherence and the factors affecting patient adherence to ARV medication

The multivariate logistic regression analysis was used to analyze the relationship between the factors affecting patient adherence to ARV medication. Based on the conceptual framework, there were 13 factors that were analyzed to find the relationship to adherence to ARV treatment included self-efficacy, knowledge of disease and medicine, gender, age, status, education, occupation, income, adverse effect, duration of treatment, dose frequency, patient-health care provider relationship and social support . The results were presented in table 4.21.

Table 4.21 Variables in the Equation

	B	S.E.	df	P-value	Exp(B)	95.0% C.I. for EXP(B)	
						Lower	Upper
female	0.917	0.356	1	0.010	2.501	1.244	5.031
low self-efficacy point			2	0.024			
moderate self-efficacy point	0.977	0.616	1	0.113	2.656	0.794	8.884
high self-efficacy point	1.417	0.536	1	0.008	4.126	1.444	11.789
low patient-provider relationship point			2	0.012			
moderate patient-provider relationship point	1.474	0.550	1	0.007	4.367	1.485	12.846
high patient-provider relationship point	0.530	0.488	1	0.278	1.699	0.652	4.425
constant	-3.095	0.607	1	0.000	0.045		

Table 4.21 showed the odd ratio (OR) or Exp (B) of the relationship between the factors affecting patient adherence to ARV medication. The factors consisted of self-efficacy, knowledge of disease and medicine, gender, age, status, education, occupation, income, adverse effect, duration of treatment, dose frequency, patient-health care provider relationship and social support with adherence to ARV medicine. There were factors associated with adherence to ARV treatment included female, self-efficacy and patient-health care provider relationship. The odds of relationship of 3 three factors were described below:

1. Female had a higher adherence level for 2.501 times compared to male (OR: 2.501: 95%CI: 1.244-5.031).

2. The moderate level of self-efficacy had a higher adherence level for 2.656 times compared to low level of self-efficacy.(OR: 2.656: 95%CI: 0.794-8.884) and the high level of self-efficacy had a higher adherence level for 4.126 times compared to low level of self-efficacy.(OR: 4.126: 95%CI: 1.444-11.789).

3. The moderate level of patient-health care provider relationship had a higher adherence level for 4.367 times compared to with low level of patient-health care provider relationship (OR: 4.367: 95%CI: 1.485-12.846) and the high level of patient-health care provider relationship had a higher adherence level for 1.699 times compared to low level of patient-health care provider relationship (OR: 1.699: 95%CI: 0.652-4.425). This study had not found any relationship between status, education, occupation, income, knowledge of disease and medicine, age, adverse effect, duration of treatment, dose frequency, social support and adherence to ARV medicine.

Prediction equation of adherence to ARV medicine

The prediction equation of adherence to ARV medicine was presented as follows:

Prediction equation = Z = -3.095 + 2.501(female) +2.656(moderate self-efficacy point) +4.126(high self-efficacy point) +4.367(moderate patient provider point) +1.699(high patient provider point)

This equation had rate of predicting correctly or overall hit rate for at 74.5 percent of 200 HIV-infected/AIDS patients as were presented in table 4.22:

Table 4.22 Overall hit rate equal

Observed		Predicted		
		Adherence		Percentage Correct
		Adherence	non adherence	
adherence	**adherence**	133	7	95.0
	non adherence	44	16	26.7
Overall Percentage				74.5