

Abstract

Objectives: Prevention and treatment of Acquired Immunodeficiency Syndrome, AIDS patient care, and AIDS related research studies.

Research methodology: The five-year Phase II program of the HIV/AIDS Control and Study Center enters its fourth year this year. This year, the center shall be continuing the work pursued in the five-year Phase I program, that is tracing the “Highly active antiretroviral therapy” (HAART) treatment conducted on AIDS patients at the NTU Hospital; including tracing opportunistic infections, clinical research, and new virus strains. This year, under a stable manpower environment, the study plans to continue the active usage of the software and hardware facilities of the center, and bring to fore the features of the center. The program shall mainly revolve around clinical medical services, and on the side, tackle fundamental research and behavioral science studies, enhance services provided to outpatients, and see to the improvement of composite therapy and medicine side effects.

Since the establishment of the NTU Hospital “The HIV/AIDS Control and Study Center” in June 1997, the entire staff of the Center had aggressively worked on AIDS prevention and clinical studies, and reached greater accomplishments through the years. Under the strong support of the Department of Health Centers for Disease Control, the HIV/AIDS Control and Study Center achieved the initial goals in the 10 years that past. Moreover, both in terms of clinical medical service and fundamental research studies, the Center achieved inconsiderable results. As personnel training and organization reached a level of stability, and the center laboratory operations reached a notable scale, the center entered a key stage in its operations, that of setting trends and examples for the future to follow. We wasted no time in upholding the important duty of preventing the spread of AIDS and providing treatment to victims. The growing popularity of AIDS involves changes in the social, cultural, and sex habits; hence the fight against AIDS is a social reform campaign and not just a simple health and hygiene problem. Therefore, in addition to AIDS treatment and medical care, the HIV/AIDS Control and Study Center shall coordinate the educational, cultural, and social sectors for a joint promotion of the AIDS prevention plan. Special attention is given to the subject matter of health education. Through the available resources of the HIV/AIDS Control and Study Center and the hospitals in northern Taiwan, the campaign plans to hold a series of health education orientations and seminars. It is believed that proper prevention education is made available to all is the best way to stem the vicious cycle of HIV infection. The initial goal of the campaign is to mobilize medical school students and hospital personnel to join the campaign, and thereafter, widen the scale of operations to include certain specific groups; such as prostitutes, homosexual males, drug dependents, ship crew, the unstable mobile population, civic and social organizations or groups, and the general public, thus, strengthening the AIDS prevention consciousness among young people. The campaign is aimed to reduce the risk of HIV infection among young people and, in the soonest possible time, set up AIDS prevention and treatment websites to provide the public with free consultation information and the latest updates on AIDS related developments.

In response to the Harm Reduction policy of the government, Dr. Sun Hsing-Yun, Dr. Hung Chien-Ching and a team of nurses of the HIV/AIDS Control and Study Center regularly conduct clinics at the Yunlin First Prison, Yunlin Second Prison, and Chiayi Prison on Fridays. The clinics provided the following services: 1. Checkup and diagnose conditions of AIDS sufferers or new inmates. 2. Understand the risk factors involved, and advice inmates of the related health education information relevant to their physical conditions. Provide answers to questions pertaining to CD4/CD8, AIDS virus count, Hepatitis A, B, and C virus counts, liver functions, and other basic biochemical tests received from long-term prison inmates. 3. Trace CD4/CD8, HIV virus count, liver function changes, and determine the time to start patient on the anti-AIDS

virus drugs. 4. Actively implement the methadone substitution treatment at the Yunlin branch hospital .

In amelioration and consolidation of the medical resource and AIDS patient related information of the nation's designated AIDS treatment hospitals, nationwide cross-hospital HIV clinical epidemiology related studies were conducted. The joint studies sought to understand the clinical symptoms of domestic AIDS sufferers, the treatment and prevention measures employed against opportunistic infection, patient inclination to seek medical attention, high risk behaviors, drug resistance and side effects of therapy treatments, and other related clinical epidemiology studies. The studies aimed to provide a reference for the future establishment or amendment of subsequent treatment and infection prevention related policies. Moreover, it is imperative that the the HIV/AIDS Control and Study Center should take a leading position in the domestic AIDS related prevention and treatment efforts, possess sufficient resource planning, education, training, and establishment capacity, and implement the PP line. This year, Dr. Sheng Wang-Hui headed a team of the HIV/AIDS Control and Study Center doctors, nurses, and medical technicians, and together with the Branch for Communicable Disease Control of Taipei City Hospital (Kun-Ming Branch Hospital), established a sound and standardized post-exposure prophylaxis procedure for the HIV infection. The center provides a 24-hour HIV screening test and a PP line information and health education service to reduce chances of HIV infection and ease the burden and anxiety of the inquirers. Furthermore, an express testing channel for the singular HIV test has been established to determine the presence of HIV virus in patients within a 24-hour period. Once a patient is tested to be HIV positive, free preventive treatment is immediately administered within a 24- to 36-hour window; information is thereafter forwarded to the health authorities to ensure the implementation of effective epidemic prevention measures.

The four major subject matters of the Two-Phase Five-Year Plan (5th year) implementation plan are as follow:

Subject matter 1, the AIDS patient care and treatment related in-job training courses for the medical staff of the respective hospital departments: The planning and implementation of AIDS patient care and treatment related in-job training for the medical staff of the respective hospital departments

Subject matter 2, HIV drug resistance surveillance and clinical procedure related studies: The surveillance and study of HIV drug resistance conditions, and an evaluation of the results of the drug resistance related clinical procedures and methods

Subject matter 3, HIV clinical epidemiology related studies: The consolidation of the medical resource and AIDS patient related information of the nation's designated AIDS treatment hospitals, and the collaboration of clinical studies conducted, aim to understand the clinical symptoms of domestic AIDS sufferers, the treatment and prevention measures employed against opportunistic infection, patient inclination to seek medical attention, high risk behaviors, and the drug resistance and side effects of therapy treatments.

Subject matter 4, the establishment of the AIDS contact Post Exposure Prophylaxis line/PP line: The planning, establishment, and execution of the AIDS contact Post Exposure Prophylaxis line/PP line

Significant Findings:

1. In line with the Harm Reduction policy of the government and in response to the problem of a growing AIDS infected drug dependent population, Dr. Hung Chien-Ching and Dr. Sun Hsing-Yun were designated to the Yunlin First Prison, Yunlin Second Prison, and Chiayi Prison to conduct blood tests and the hepatitis abdominal ultrasound tests on prison inmates. The regular clinics had become a huge headache for the prison authorities as they needed to mobilize a huge force of prison guards to take the inmates to the hospital for blood sampling and test procedures. It is hoped to find the needed manpower to conduct the blood and

medical tests in the prison, and implement the methadone substitution treatment at the Yunlin Branch Hospital.

2. For the enhancement of the HIV case management operating model, the Center especially created the HIV case management operating model within the NTU Hospital medical system, as well as set the related standards. In the future, the system shall manifest more diversified, multilevel case management operating models.
3. Numerous forums and seminars were launched this year in an effort to upgrade the HIV/AIDS Control and Study Center health education service program and in response to the problem of a growing AIDS infected drug dependent population, such as the five large-scale AIDS forum, one “HIV/AIDS Workshop for Drug Resistance and Treatment Options”, and three courses of the Training Program of HIV Case Administrators. The training courses were conducted in response to clinical test requirements, in enhancement of the participation and skills of domestic clinical study personnel, and in fostering the coordination of domestic clinical test standards with international standards. For this purpose, the center coordinated with the Formosa Cancer Foundation and the Infectious Diseases Society of Taiwan and jointly hosted the “Seminar on Design and Implementation of Clinical Studies on Drugs for Infectious Disease Physicians” held on October 6, 7, 20, and 21, 2007 (four days in all). The course is a sequel to “The Training Program of HIV Case Administrators” beginner and advance courses we hosted last year together with the Nurses AIDS Prevention Foundation. The seminars were held on May 18 to 20 (south region seminar attended by 110 trainees), June 1 to 3 (north region seminar attended by 244 trainees), and on June 29 to 30 (advance class attended by 153 trainees). Applications for the foregoing seminars, workshops, and lecture classes had been enthusiastic and had exceeded the room seating capacity; hence we needed to change location to a larger venue. Size of the classes grew exponentially and participants avidly interactive during the sessions.
4. The center hopes to beef up the medical equipment of the HIV/AIDS Control and Study Center to provide each member of the public a sense of receiving fair and equal treatment. The ventilation system and UV disinfecting system of isolation wards should be improved; moreover equipment in the endoscope room should be upgraded.
5. The problems of prevention work among foreign workers and brides: There is now a large population of foreign workers, “Southeast Asian brides”, and “Mainland Chinese brides” in Taiwan. The medical reports prepared in their home countries are not all as factual as expected, a matter that had become the cause of many a home tragedy.
6. As for the matter of the WHO understanding of the AIDS prevention work in Taiwan, since the WHO sees Taiwan as an integral part of China, our efforts in this area had been ignored. Some medical and study findings had been diluted. It is hoped that the government authorities should present our case to the international community and gain their support for the WHO recognition of Taiwan. In fact, we could contribute information from our experiences to help developing nations and regions requiring assistance.
7. The emergence of the drug resistant HIV strain and the continued updating of the “HIV/AIDS Health Care Criteria and Therapy Guide”: The nationwide launching of the HIV/AIDS Control and Study Center HAART therapy in April 1997 allowed Taiwan to witness the emergence of a highly efficient medical treatment. The death rate of AIDS patients in hospitals began to plunge; unfortunately, this happy scenario did not last long due to the emergence of the drug resistant HIV not long after. The tolerance of Taiwan patients to the HIV-resistant remedy had been low; hence their inclination to undertake the treatment had been low as well. Thus, the spread of the drug resistant strain here had been faster than those in Europe and the United States. The solution of this complicated problem had remained an important issue to the medical sector.

Conclusion and Recommendations:

1. Numerous forums and seminars were launched this year to ensure the continued upgrading of the HIV/AIDS Control and Study Center health education service program, such as the five large-scale AIDS forum, one HIV/AIDS related workshop, and three HIV case administrator training courses. Applications for the courses had been enthusiastic and had exceeded the room seating capacity; moreover, the center received wonderful feedbacks on them. It was apparent that AIDS health care related problems are a matter of serious concern today. In the future, we shall continue to hold regular courses on the subject, as we hope to expand classes open to doctors from other fields of specialization.
2. The consolidation of the medical resources of the nation's AIDS treatment hospitals, the establishment of a resource and information sharing and support network for the optimization of limited hospital resources and beds had allowed patients to receive the proper treatment. In consequence, we saw the optimization of the nation's prevention performance.
3. The campaign of assigning doctors to the Yunlin First Prison, Yunlin Second Prison, Chiayi Prison to check up and diagnose conditions of AIDS sufferers or new inmates. It is hoped to find the needed manpower to conduct blood sampling and testing procedures in the prison. Moreover, the methadone sustenance therapy procedure and a psychological epidemiology on drug-dependent inmates were implemented at the Yunlin branch hospital.
4. The ratio between the male and female AIDS sufferers has narrowed from the 20:1 in 2004 to 10:1 in 2006. In the female sufferer population, 53.91% were drug dependents, and 90.31% of which belong to the 19 – 49 age bracket. A comparison with the gender population ratio of AIDS sufferers of the past years revealed that population of female AIDS sufferers is rising dramatically in the country. In light of which, studies delving into the HIV infection among women, AIDS treatment procedures, and the vertical infection problem between mother and child shall become the important issues of our future agenda.
5. HIV drug resistance surveillance and clinical procedure related studies: The surveillance and study of HIV drug resistance conditions, and an evaluation of the results of the drug resistance related clinical procedures and methods
6. HIV clinical epidemiology related studies: The consolidation of the medical resource and AIDS patient related information of the nation's designated AIDS treatment hospitals, and the collaboration of the clinical studies conducted, aim to understand the clinical symptoms of domestic AIDS sufferers, the treatment and prevention measures employed against opportunistic infection, patient inclination to seek medical attention, high risk behaviors, and the drug resistance and side effects of therapy treatments.
7. The long-term study of the AIDS Cocktail Therapy (e.g., survival rate, etc.)
8. The establishment of the AIDS Contact Post Exposure Prophylaxis line/PP line: The planning, establishment, and execution of the AIDS Contact Post Exposure Prophylaxis line/PP line

Keyword: HIV , AIDS , The HIV/AIDS Control and Study Center , Highly active antiretroviral therapy , HAART , Post Exposure Prophylaxis line/PP line