別紙様式第２－１

医薬品　研究報告 調査報告書

識別番号・報告回数			報告日	第一報入手日	新医薬品等の区分	総合機構処理欄
一般的名称	－		研究報告の公表状況	http://www.fda.gov/cber/faq/msmdonor.htm	公表国 米国	
販売名(企業名)	－					

研究報告の概要

男性間性交渉者(MSM)からの供血に関する米国食品医薬品局(FDA)の政策は、米国でAIDSが流行し始めた1977年以降に他の男性と性交渉を行ったことがある男性の供血は見合わせており、これは米国独自のものではなく、多くのヨーロッパ諸国も、この政策を維持しており、MSMからの供血永久停止を科学と倫理の両面から再検討している。

米国赤十字によると、1977年以降に男性間性交渉歴を持つ男性のHIV有病率は、一般集団の60倍、初回供血者の800倍、リピート供血者の8000倍高いとされる。HIVに感染している男性間性交渉者の75%は、すでに自分がHIV陽性であることを自覚しており、供血する可能性は低いことを考慮に入れても、男性間性交渉歴を有する潜在的供血者のHIV有病率は、初回供血者よりも200倍高く、リピート供血者よりも2000倍高い。

現在の高感度検査がHIV感染供血者を検出できない割合は100万人中1人未満であるものの、米国で全血、赤血球濃縮製剤、血漿、血小板が輸血される件数は年間2000万件以上にのぼることに留意しなければならない。

非常に低レベルのウイルスが血中に存在する時期、いわゆる「ウインドウ期」では、HIV感染を検出することが特に難しい。

現在、輸血や血漿分画製剤からHIVが伝播するリスクは米国ではほぼ排除されている。

また、男性間性交渉者は、輸血により伝播され得る他の感染症を有するリスクも高い。例えば、男性間性交渉者は、一般集団よりも、B型肝炎ウイルス感染は約5～6倍多くみられ、C型肝炎ウイルス感染は約2倍多くみられる。さらに、男性間性交渉者の間でヒトヘルペスウイルス8型（HHV-8）の罹患率と有病率も高い。HHV-8は、免疫不全患者にカポジ肉腫と呼ばれる癌を引き起こす。

報告企業の意見	今後の対応
米国において実施されている､HIVをはじめとするウイルス疾患のハイリスクグループであるMSMからの供血制限に関する情報である。 血漿分画製剤では、採血時の問診、スクリーニング検査に加え、製造工程中において各種ウイルスの不活化･除去効果を有する工程が設けられている。	今後とも供血者からのHIV等の感染者排除に関する安全性情報等に留意していく。

使用上の注意記載状況・その他参考事項等

重要な基本的注意

現在までに本剤の投与により変異型クロイツフェルト・ヤコブ病（vCJD）等が伝播したとの報告はない。しかしながら、製造工程において異常プリオンを低減し得るとの報告があるものの、理論的なvCJD等の伝播のリスクを完全には排除できないので、投与の際には患者への説明を十分行い、治療上の必要性を十分検討の上投与すること。

FDA Policy on Blood Donations from Men Who Have Sex with Other Men

---

What is FDA's policy on blood donations from men who have sex with other men (MSM)?

Men who have had sex with other men, at any time since 1977 (the beginning of the AIDS epidemic in the United States) are currently deferred as blood donors. This is because MSM are, as a group, at increased risk for HIV, hepatitis B and certain other infections that can be transmitted by transfusion.

The policy is not unique to the United States. Many European countries have recently reexamined both the science and ethics of the lifetime MSM deferral, and have retained it (See the transcript of the "FDA Workshop on Behavior-Based Donor Deferrals in the NAT Era" at http://www.fda.gov/cber/minutes/nat030806t.htm#7 for further information.). This decision is also consistent with the prevailing interpretation of the European Union Directive 2004/33/EC article 2.1 on donor deferrals.

Why doesn't FDA allow men who have had sex with men to donate blood?

A history of male-to-male sex is associated with an increased risk for the presence of and transmission of certain infectious diseases, including HIV, the virus that causes AIDS. FDA's policy is intended to protect all people who receive blood transfusions from an increased risk of exposure to potentially infected blood and blood products.

The deferral for men who have had sex with men is based on the following considerations regarding risk of HIV:

- Men who have had sex with men since 1977 have an HIV prevalence (the total number of cases of a disease that are present in a population at a specific point in time) 60 times higher than the general population, 800 times higher than first time blood donors and 8000 times higher than repeat blood donors (American Red Cross). Even taking into account that 75% of HIV infected men who have sex with men already know they are HIV positive and would be unlikely to donate blood, the HIV prevalence in potential donors with history of male sex with males is 200 times higher than first time blood donors and 2000 times higher than repeat blood donors.
- Men who have had sex with men account for the largest single group of blood donors who are found HIV positive by blood donor testing.
- Blood donor testing using current advanced technologies has greatly reduced the risk of HIV transmission but cannot yet detect all infected donors or prevent all transmission by transfusions. While today's highly sensitive tests fail to detect less than one in a million HIV infected donors, it is important to remember that in the US there are over 20 million transfusions of blood, red cell concentrates, plasma or platelets every year. Therefore, even a failure rate of 1 in a million can be significant if there is an increased risk of undetected HIV in the blood donor population.
- Detection of HIV infection is particularly challenging when very low levels of virus are present in the blood for example during the so-called "window period". The "window period" is the time between being infected with HIV and the ability of an HIV test to detect HIV in an infected person.
- FDA's MSM policy reduces the likelihood that a person would unknowingly donate blood during the "window period" of infection. This is important because the rate of new infections in MSM is higher than in the general population and current blood donors.
- Collection of blood from persons with an increased risk of HIV infection also presents an added risk if blood were to be accidentally given to a patient in error either before testing is completed or following a positive test. Such medical errors occur very rarely, but given that there are over 20 million transfusions every year, in the USA, they can occur. That is one more reason why FDA and other regulatory authorities work to assure that there are multiple safeguards, not just testing.
- Several scientific models show there would be a small but definite increased risk to people who receive blood transfusions if FDA's MSM policy were changed and that preventable transfusion transmission of HIV could occur as a result.
- No alternate set of donor eligibility criteria (even including practice of safe sex or a low number of lifetime partners) has yet been found to reliably identify MSM who are not at increased risk for HIV or certain other transfusion

transmissible infections.

- Today, the risk of getting HIV from a transfusion or a blood product has been nearly eliminated in the United States. Improved procedures, donor screening for risk of infection and laboratory testing for evidence of HIV infection have made the United States blood supply safer than ever. While appreciative and supportive of the desire of potential blood donors to contribute to the health of others, FDA's first obligation is to assure the safety of the blood supply and protect the health of blood recipients.
- Men who have sex with men also have an increased risk of having other infections that can be transmitted to others by blood transfusion. For example, infection with the Hepatitis B virus is about 5-6 times more common and Hepatitis C virus infections are about 2 times more common in men who have sex with other men than in the general population. Additionally, men who have sex with men have an increased incidence and prevalence of Human Herpes Virus-8 (HHV-8). HHV-8 causes a cancer called Kaposi's sarcoma in immunocompromised individuals.

What is self-deferral?

Self-deferral is a process in which individuals elect not to donate because they identify themselves as having characteristics that place them at potentially higher risk of carrying a transfusion transmissible disease. FDA uses self-deferral as part of a system to protect the blood supply. This system starts by informing donors about the risk of transmitting infectious diseases. Then, potential donors are asked questions about their health and certain behaviors and other factors (like travel and past transfusions) that increase their risk of infection. Screening questions help people, even those who feel well, to identify themselves as potentially at higher risk for transmitting infectious diseases. Screening questions allow individuals to self defer, rather than unknowingly donating blood that may be infected.

Is FDA's policy of excluding MSM blood donors discriminatory?

FDA's deferral policy is based on the documented increased risk of certain transfusion transmissible infections, such as HIV, associated with male-to-male sex and is not based on any judgment concerning the donor's sexual orientation.

Male to male sex has been associated with an increased risk of HIV infection at least since 1977. Surveillance data from the Centers for Disease Control and Prevention indicate that men who have sex with men and would be likely to donate have a HIV prevalence that is at present over 15 fold higher than the general population, and over 2000 fold higher than current repeat blood donors (i.e., those who have been negatively screened and tested) in the USA. MSM continue to account for the largest number of people newly infected with HIV.

Men who have sex with men also have an increased risk of having other infections that can be transmitted to others by blood transfusion.

What about men who have had a low number of partners, practice safe sex, or who are currently in monogamous relationships?

Having had a low number of partners is known to decrease the risk of HIV infection. However, to date, no donor eligibility questions have been shown to reliably identify a subset of MSM (e.g., based on monogamy or safe sexual practices) who do not still have a substantially increased rate of HIV infection compared to the general population or currently accepted blood donors. In the future, improved questionnaires may be helpful to better select safe donors, but this cannot be assumed without evidence.

Are there other donors who have increased risks of HIV or other infections who, as a result, are also excluded from donating blood?

Intravenous drug abusers are excluded from giving blood because they have prevalence rates of HIV, HBV, HCV and HTLV that are much higher than the general population. People who have received transplants of animal tissue or organs are excluded from giving blood because of the still largely unknown risks of transmitting unknown or emerging pathogens harbored by the animal donors. People who have recently traveled to or lived abroad in certain countries may be excluded because they are at risk for transmitting agents such as malaria or variant Creutzfeldt-Jakob Disease (vCJD). People who have engaged in sex in return for money or drugs are also excluded because they are at increased risk for transmitting HIV and other blood-borne infections.

Why are some people, such as heterosexuals with multiple partners, allowed to donate blood despite increased risk for transmitting HIV and hepatitis?

Current scientific data from the U.S. Centers for Disease Control and Prevention (CDC) indicate that, as a group, men who have sex with other men are at a higher risk for transmitting infectious diseases or HIV than are individuals in other risk categories. While statistics indicate a rising infection rate among young heterosexual women, their overall rate of HIV infection remains much lower than in men who have sex with other men. For information on HIV-related statistics and trends, go to CDC's HIV/AIDS Statistics and Surveillance web page.

Isn't the HIV test accurate enough to identify all HIV positive blood donors?

HIV tests currently in use are highly accurate, but still cannot detect HIV 100% of the time. It is estimated that the HIV risk from a unit of blood has been reduced to about 1 per 2 million in the USA, almost exclusively from so called "window period" donations. The "window period" exists very early after infection, where even current HIV testing methods cannot detect all infections. During this time, a person is infected with HIV, but may not have made enough virus or developed enough antibodies to be detected by available tests. For this reason, a person could test negative, even when they are actually HIV positive and infectious. Therefore, blood donors are not only tested but are also asked questions about

behaviors that increase their risk of HIV infection.

Collection of blood from persons with an increased risk of HIV infection also presents an added risk to transfusion recipients due to the possibility that blood may be accidentally given to a patient in error either before testing is completed or following a positive test. Such medical errors occur very rarely, but given that there are over 20 million transfusions every year, in the USA, they can occur. For these reasons, FDA uses a multi-layered approach to blood safety including pre-donation deferral of potential donors based on risk behaviors and then screening of the donated blood with sensitive tests for infectious agents such as HIV-1, HIV-2, HCV, HBV and HTLV-I/II.

How long has FDA had this MSM policy?

FDA's policies on donor deferral for history of male sex with males date back to 1983, when the risk of AIDS from transfusion was first recognized. Our current policy has been in place since 1992.

FDA has modified its blood donor policy as new scientific data and more accurate tests for HIV and hepatitis became available. Today, the risk of getting HIV from a blood transfusion has been reduced to about one per two million units of blood transfused. The risk of hepatitis C is about the same as for HIV, while the risk of hepatitis B is somewhat higher.

Doesn't the policy eliminate healthy donors at a time when more donors are needed because of blood shortages?

FDA realizes that this policy will defer many healthy donors. However, FDA's MSM policy minimizes even the small risk of getting infectious diseases such as HIV or hepatitis through a blood transfusion.

Would FDA ever consider changing the policy?

FDA scientists continue to monitor the scientific literature and to consult with experts in CDC, NIH and other agencies. FDA will continue to publicly revisit the current deferral policy as new information becomes available.

On March 8, 2006, FDA conducted a workshop entitled "Behavior-based donor deferrals in the Nucleic Acid Test (NAT) era". The workshop addressed scientific challenges, opportunities, and risk based donor deferral policies relevant to the protection of the blood supply from transfusion transmissible diseases, seeking input on this topic. Participants were given the opportunity to provide scientific data that could support revising FDA's MSM deferral. The workshop provided a very active, open and broad-based scientific dialogue concerning current behavior-based deferrals and explored other options that may be considered and the data needed to evaluate them.

FDA's primary responsibility is to enhance blood safety and protect blood recipients. Therefore FDA would change this policy only if supported by scientific data showing that a change in policy would not present a significant and preventable risk to blood recipients. Scientific evidence has not yet been provided to FDA that shows that blood donated by MSM or a subgroup of these potential donors, is as safe as blood from currently accepted donors.

FDA remains willing to consider new approaches to donor screening and testing, provided those approaches assure that blood recipients are not placed at an increased risk of HIV or other transfusion transmitted diseases.

References:

1. Germain, M., Remis, R.S., and Delage, G. The risks and benefits of accepting men who have had sex with men as blood donors. Transfusion 2003; 43:25-33.
2. Busch MP, Glynn SA, Stramer SL, Strong DM, Caglioti S, Wright DJ, Pappalardo B, Kleinman SH; NHLBI-REDS NAT Study Group. A new strategy for estimating risks of transfusion-transmitted viral infections based on rates of detection of recently infected donors. Transfusion 2005, 45:254-264
3. Presentation at FDA Blood Products Advisory Committee Meeting, September 2000.
4. Soldan, K. and Sinka, K. Evaluation of the de-selection of men who have had sex with men from blood donation in England. Vox Sanguinis 2003; 84:265-273.

Updated: May 23, 2007

別紙様式第2-1

No. 28

医薬品 研究報告 調査報告書

識別番号・報告回数			報告日	第一報入手日	新医薬品等の区分	機構処理欄
				2007. 3. 19	該当なし	

一般的名称	解凍人赤血球濃厚液	研究報告の公表状況		公表国
販売名(企業名)	解凍赤血球濃厚液「日赤」(日本赤十字社) 照射解凍赤血球濃厚液「日赤」(日本赤十字社) 解凍赤血球-LR「日赤」(日本赤十字社) 照射解凍赤血球-LR「日赤」(日本赤十字社)		Chen YM, Kuo SH. Lancet. 2007 Feb 24;369(9562):623-5.	台湾

研究報告の概要

○台湾のHIV-1

台湾のHIV-1/AIDS感染拡大は危険な状況に突入しつつある。2006年末までに外国人599名を含む13,702名のHIV-1感染が台湾の疾病対策センター(CDC)に報告された。2003年の初回供血者、徴集兵、妊婦におけるHIV-1感染率は、それぞれ10万人当り5.2人、57.0人、12.0人であった。同年のHIV-1感染率は、静注薬物使用者(IDU)で0.09%、女性風俗従業員で0.2%、性感染症患者で1.9%、男性と性交渉を持つ男性(MSM)で6.7%であった。感染者数は2003年に11%増、2004年に77%増、2005年に123%増と急増したが、感染拡大予防プログラム実施後の2006年には10%減少した。最近の推定では台湾のHIV-1/AIDS感染者数は約3万人で、感染率(2,300万人中3万人;1/767)は中国(13億人中65万人;1/2,000)よりも高い可能性が示されている。

リスク要因分析によると、IDUのHIV-1感染率は、2002年の1.7% (13/772)から2003年の8.1%(70/862)、2004年の41.3%(628/1,520)、2005年の72.4% (2,461/3,399)へと増加し、2006年には68.6% (2,017/2,974)に減少した。台湾のIDU6万～10万人のうち、10～15%はHIV-1のCRF07_BC株に感染していると推定される。

同性愛者用サウナを利用するMSMのHIV-1感染率は5.2%～15.8%である。MSMのHIV-1/AIDS感染者は、異性愛者と比べて梅毒の有病率も有意に高い。HIV-1/AIDS感染者のうち20歳未満の割合は、異性愛者(1.7%)と比較してMSM(3.0%)では有意に多い。

HIV-1の垂直感染例は、2006年末までに確定例19例が報告された。台湾CDCは、2005年1月に母子感染予防プログラムを開始し、2005年中に5例の垂直感染が報告された。2006年6月までにスクリーニング率は97.4%に達し、妊婦338,452名中47名(10万人当り13.9人)の感染が特定され、母子感染予防のための抗レトロウイルス療法を受けた。

台湾でHIV-1感染の脅威が高まるにつれ、根強い感染の否定、差別再燃の兆候が多くみうけられる。

報告企業の意見	今後の対応
2003年以降急増した台湾のHIV-1/AIDS感染者数は約3万人と推測され、感染率は中国よりも高い可能性が示され危険な状態に入りつつあるとの報告である。	日本赤十字社では、HIVについて20プールでスクリーニングNATを行い、陽性血液を排除している。国内外のHIV感染、AIDS発生の動向やHIV感染に関する新たな知見等について今後も情報の収集に努める。次世代NAT試薬についての評価、検査方法の改良に向けた開発・検討を進める。

使用上の注意記載状況・その他参考事項等

解凍赤血球濃厚液「日赤」
照射解凍赤血球濃厚液「日赤」
解凍赤血球-LR「日赤」
照射解凍赤血球-LR「日赤」

血液を介するウイルス、
細菌、原虫等の感染
vCJD等の伝播のリスク

8 American Enterprise Institute, Washington, D.C. Can Asia avoid the AIDS typhoon? Nov 11, 2002: http://www.kaisernetwork.org/health_cast/hcast_index.cfm?display=detail&hc=722 (accessed Oct 19, 2006).

9 Ministry of Health, People's Republic of China, Joint United Nations Programme on HIV/AIDS, World Health Organization. Update on the HIV/AIDS epidemic and response in China. 2006: http://data.unaids.org/publications/External-Documents/RP_2005ChinaEstimation_25Jan06_en.pdf (accessed Oct 26, 2006).

10 Hesketh T, Huang XM, Wang ZB, Xing ZW, Cubitt DW, Tomkins AM. Using the premarital examination for population-based surveillance for HIV in China. *AIDS* 2003; **17**: 1574–76.

11 Qu S, Sun X, Zheng X, Shen J. National sentinel surveillance of HIV infection in China from 1995 to 2001. XIV International AIDS Conference, Barcelona, Spain, July 7–12, 2002: WePeC6072 (abstr). http://gateway.nlm.nih.gov/MeetingAbstracts/102250025.html (accessed Oct 26, 2006).

12 Hong L, Mo LH, Liu H. Prevention of HIV transmission from mother-to-child in Yunnan. *Mod Prev Med* 2001; **28**: 68–69.

13 Wang L, Kong L, Wu F, Bai Y, Burton R. Preventing chronic diseases in China. *Lancet* 2005; **366**: 1821–24.

HIV-1 in Taiwan

Taiwan is entering a new and dangerous phase of its HIV-1/AIDS epidemic. By the end of 2006, 13 702 individuals (including 599 foreigners) had been reported as infected with HIV-1 to the Centers for Disease Control of Taiwan.[1] In 2003, HIV-1 rates in first-time blood donors, military conscripts, and pregnant women were measured at 5·2, 57·0, and 12·0 per 100 000, respectively.[1] Data from that year indicated HIV-1 rates of 0·09% for intravenous drug users, 0·2% for female sex workers, 1·9% for patients with sexually transmitted infections, and 6·7% for men who have sex with men in saunas or bath houses.[1] Since then, the number of people living with HIV-1/AIDS in Taiwan has jumped sharply, from an 11% increase in 2003 to a 77% increase in 2004 and a 123% increase in 2005 (figure 1).[1]

However, after the implementation of a harm-reduction programme, a 10% decrease was seen in 2006 (figure 1). The current estimated number of HIV-1/AIDS cases in Taiwan is about 30 000, which suggests that the infection rate there could be greater than that in China: 30 000 per 23 million (1/767) compared with 650 000 per 1·3 billion (1/2000).[2]

A risk-factor analysis of reported cases showed that the proportion of intravenous drug users infected with HIV-1 increased from 1·7% (13/772) in 2002, to 8·1% (70/862) in 2003, to 41·3% (628/1520) in 2004, to 72·4% (2461/3399) in 2005, and dropped to 68·6% (2017/2974) in 2006 (figure 2).[1] The most important risk factor for Taiwanese intravenous drug users is needle-sharing, followed by the sharing of heroin diluents.[3] A molecular epidemiological study showed that more than 95% of intravenous drug users with newly diagnosed HIV-1 in 2004 and 2005 were infected with CRF07_BC, a circulating recombinant form of subtypes B′ and C.[4,5] Previously, several studies suggested that CRF07_BC originated in China's Yunnan province as a mix of subtype B′ from Thailand and subtype C from India. The subtype is believed to have moved to Xinjiang province in China's northwest along a major heroin-trafficking route.[6]

See Editorial page 616
See Comment page 621

Of the 60 000–100 000 intravenous drug users in Taiwan, 10–15% may be infected with CRF07_BC. If so, they probably represent the largest group of such intravenous drug users in northeast Asia. The circulating recombinant form might have followed a separate drug-trafficking route to Taiwan from Yunnan

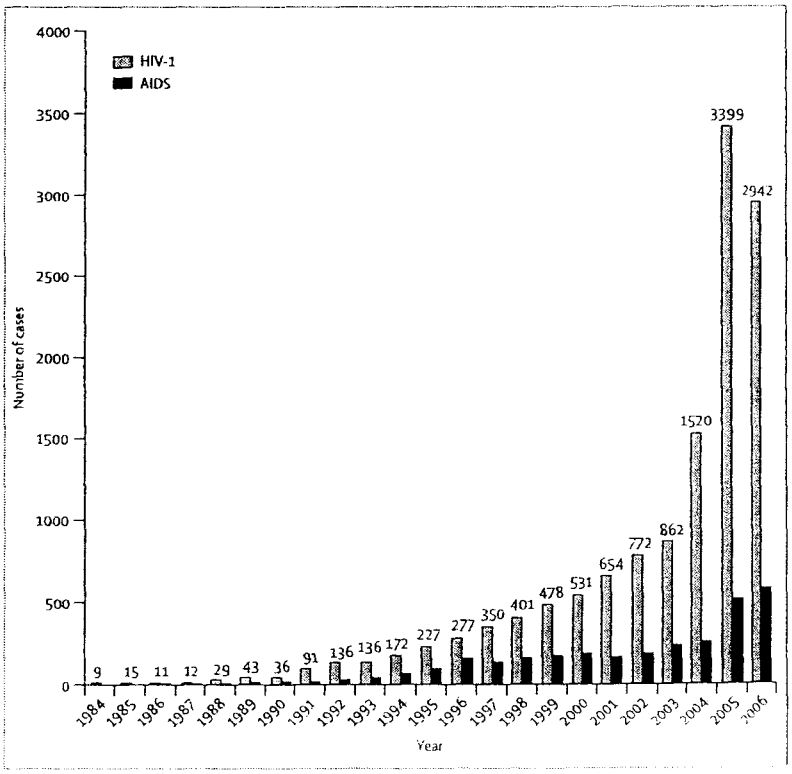

Figure 1: Annual numbers of HIV-1 seropositive cases and AIDS patients reported to Taiwan Centers for Disease Control[1]

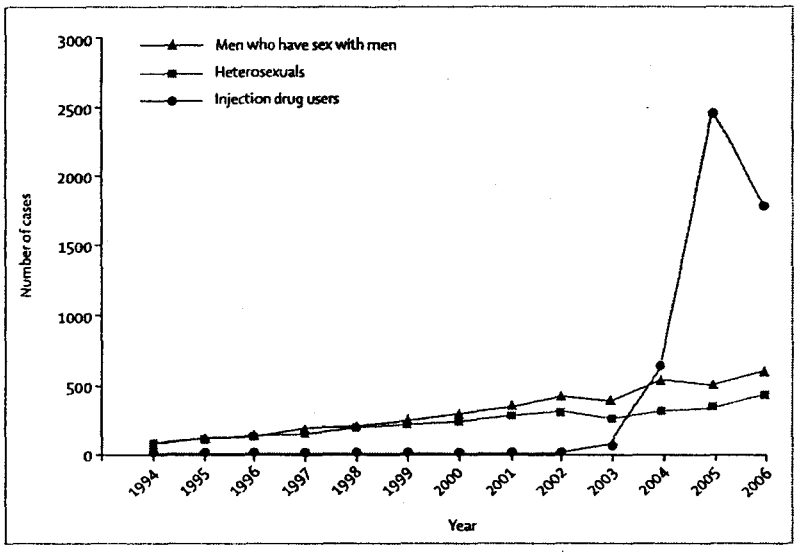

Figure 2: Annual numbers of HIV-1-infected persons in various high-risk groups reported to Taiwan Centers for Disease Control[5]

via southeast China, Guangxi province, and Hong Kong.[7-9] There have been enormous increases in the amount of heroin smuggled into Taiwan and in the number of intravenous drug users since 2002, when five intravenous drug users from southern Taiwan were diagnosed as the country's first HIV-1 seropositive cases infected with CRF07_BC.[5] Even though the Hong Kong authorities identified three cases of CRF07_BC infection in 2001, a serious outbreak in that city's population of intravenous drug users is believed to have been blocked by a methadone maintenance programme.[9]

Clearly, close monitoring of emerging HIV-1 subtypes related to intravenous drug use and implementing harm-reduction programmes are vital to preventing similar outbreaks in other populations of intravenous drug users in neighbouring countries. In 2005, Alex Wodak, Jerry Stimson, and other harm-reduction experts were invited to Taiwan to share their experiences with government officials, medical field-workers, and public-health professionals. After careful study of harm-reduction programmes in place in Hong Kong and Australia, a pilot programme was started in four of Taiwan's 23 administrative areas in September, 2005. This programme has since been expanded nationally, and consists of 427 service sites for syringe exchange plus centres for methadone maintenance therapy. Free methadone is provided to HIV-1-infected intravenous drug users while HIV-1 seronegative intravenous drug users have to pay about US$1600 a year. The Taiwan Centers for Disease Control plans to provide methadone maintenance to intravenous drug users in prisons, and the country's Bureau of Controlled Drugs will start producing methadone to assist in the government's commitment to providing methadone maintenance to 30 000 intravenous drug users by 2009.

All parts of Asia are reporting rising numbers of HIV-positive and AIDS patients in male homosexuals and bisexuals. In Taiwan, HIV-1 infection rates in men who have sex with men in gay saunas in different cities currently range from 5·2% to 15·8%.[10,11] The same population has high rates of syphilis, 8·1–13·8%, depending on the city.[10,11] Taiwanese male homosexual and bisexual HIV-1/AIDS patients have also been diagnosed with significantly higher rates of syphilis than have heterosexual patients.[12] Furthermore, the percentage of homosexual or bisexual HIV-1/AIDS patients under the age of 20 years is significantly higher than that of heterosexual patients, 3·0% versus 1·7%.[12] In addition to the stigmatisation of homosexuality in Taiwanese society, the lack of accurate information on homosexuality in sex education and on risk factors in AIDS education increases the risk of contracting HIV and other sexually transmitted infections within the country's population of men who have sex with men. Whilst a community-based prevention programme for such men has been developed by a group of academic and grass-roots non-governmental organisations, a current challenge is the implementation of this programme into a national programme, and making it a priority.

Taiwan's clinical spectrum of AIDS patients is similar to those reported in other developed countries, but significant differences have been noted in incidences of opportunistic infections. For example, the incidence of tuberculosis in patients with advanced illness is high in Taiwan (24·6%) and the rate of endemic fungal (*Penicillium marneffei*) infections is increasing.[13,14] On the positive side, the effort by the Taiwanese Government since April, 1997, to distribute highly-active antiretroviral therapy for free[15] has resulted in dramatic decreases in morbidity and mortality from HIV-1 infection.[16]

Because of their high background prevalence, HBV and HCV coinfections with HIV are particularly important in Asian countries in terms of HIV transmission via injecting drug use.[17,18] In a survey of

459 intravenous drug users infected with HIV-1, one of us (Y-MAC) found that 456 (99·6%) also had anti-HCV antibodies and 77 (16·8%) were seropositive for HBsAg. The long-term impact of hepatitis coinfections on HIV and on morbidity and mortality from liver disease requires monitoring.

By the end of 2006, 19 confirmed cases of vertical HIV-1 transmission have been reported to the Taiwan Centers for Disease Control.[1] In January, 2005, the agency started a national programme focused on prevention of mother-to-child transmission, and five cases of vertical transmission were reported in 2005. By June, 2006, the screening rate had reached 97·4%, and 47 of 338 452 pregnant women (13·9 per 100 000) tested in Taiwan have been identified as having HIV-1 infections and have received antiretroviral therapy to prevent mother-to-child transmission. To increase the participation rate, there is discussion of changing the voluntary counselling and testing strategy from opt in to opt out.

Several positive responses to the HIV/AIDS epidemic in Taiwan should be mentioned. In 1990 an AIDS Prevention and Control Law was passed to protect the rights of people with HIV/AIDS for treatment, education, and employment. Since 1992, 16 non-governmental organisations registered or established in Taiwan have provided shelter, care, counselling, anonymous testing, and AIDS education. One in particular, the People Living with HIV/AIDS Rights' Advocacy Association, has been addressing human rights issues related to HIV/AIDS since 1997. However, most such organisations have their headquarters and facilities in northern Taiwan, and two-thirds of the country's intravenous drug users live in central and southern parts. In addition, many social workers employed by non-governmental organisations are still unfamiliar with issues related to drug abuse and inexperienced in interacting with intravenous drug users. There is a clear and immediate need for counselling workshops for medical staff and social workers.

As the HIV-1 infection threat increases, there are many signs of persistent denial and resurgent discrimination in Taiwan. Several important issues need to be addressed: sentinel surveillance of female sex workers, social welfare institutions and housing for homeless people with HIV/AIDS, financial support for non-governmental organisations, training and re-education programmes aimed at changing the attitudes of medical staff toward people with HIV/AIDS, and more funding for AIDS research, especially vaccine development.

*Yi-Ming Arthur Chen, Steve Hsu-Sung Kuo
AIDS Prevention and Research Center and Institute of Public Health, National Yang-Ming University, 112 Taipei, Taiwan, (Y-MAC); and Centers for Disease Control, Taipei, Taiwan (SH-SK)
Arthur@ym.edu.tw

We declare that we have no conflict of interest.

1 Centers for Disease Control, R.O.C. (Taiwan). HIV/AIDS data.' 2006: http://www.cdc.gov.tw/website_en/health%20topics/Communicable%20Diseases%20&%20Prevention/Issues%20of%20HIV-AIDS/Statistics%20of%20HIV-AIDS/Download%20HIV-AIDS%20Data.files/2006.files/9512Monthly%20Report.pdf (accessed Jan 30, 2007).
2 Ministry of Health, People's Republic of China, Joint United Nations Programme on HIV/AIDS, World Health Organization. 2005 update on the HIV/AIDS epidemic and response in China. Jan 24, 2005: http://data.unaids.org/Publications/External-Documents/RP_2005ChinaEstimation_25Jan06_en.pdf (accessed Jan 23, 2007).
3 Chen YM. Molecular epidemiology of HIV-1 infection among injecting drug users in Taiwan. 2005 Taipei International Conference on Drug Control and Addition Treatment, Taipei, Taiwan, Nov 22–24, 2005.
4 Chen YM, Lan YC, Lai SF, Yang JY, Tsai SF, Kuo SH. HIV-1 CRF07_BC infections, injecting drug users, Taiwan. *Emerg Infect Dis* 2006; **12**: 703–05.
5 Lin YT, Lan YC, Chen YJ, et al. Molecular epidemiology of HIV-1 infection and full-length genomic analysis of HIV-1 circulating recombinant form 07_BC strains from injecting drug users in Taiwan. *J Infect Dis* (in press).
6 Su L, Graf M, Zhang Y, et al. Characterization of a virtually full-length human immunodeficiency virus type 1 genome of a prevalent intersubtype (C/B') recombinant strain in China. *J Virol* 2000; **74**: 11367–76.
7 Piyasirisilp S, McCutchan FE, Carr JK, et al. A recent outbreak of human immunodeficiency virus type 1 infection in southern China was initiated by two highly homogeneous, geographically separated strains, circulating recombinant form AE and a novel BC recombinant. *J Virol* 2000; **74**: 11286–95.
8 Cohen J. Asia and Africa: on different trajectories? *Science* 2004; **304**: 1932–38.
9 Lim WL, Xing H, Wong KH, et al. The lack of an epidemiological link between HIV type 1 infections in Hong Kong and Mainland China. *AIDS Res Hum Retroviruses* 2004; **20**: 259–62.
10 Lai SF, Hong CP, Lan YC, et al. Molecular epidemiology of HIV-1 in men who have sex with men from gay saunas in Taiwan from 2000 to 2003. XV International AIDS Conference, Bangkok, Thailand, July 11–16, 2004: http://www.iasociety.org/abstract/show.asp?abstract_id=2172548 (accessed Jan 23, 2007).
11 Ko NY, Lee HC, Chang JL, et al. Prevalence of human immunodeficiency virus and sexually transmitted infections and risky sexual behaviors among men visiting gay bathhouses in Taiwan. *Sex Transm Dis* 2006; **33**: 467–73.
12 Chen YM, Huang KL, Jen I, et al. Temporal trends and molecular epidemiology of HIV-1 infection in Taiwan from 1988 to 1998. *J Acquir Immune Defic Syndr Hum Retrovirol* 2002; **26**: 274–82.
13 Hsieh SM, Hung CC, Chen MY, Hsueh PR, Chang SC, Luh KT. Clinical manifestations of tuberculosis in patients with advanced HIV-1 infection in Taiwan. *J Formos Med Assoc* 1996; **95**: 923–28.
14 Hsueh PR, Teng LJ, Hung CC, Chen YG, Luh KT, Ho SW. Molecular evidence on strain dissemination of *Penicillium marneffei*: an emerging pathogen in Taiwan. *J Infect Dis* 2000; **181**: 1706–12.
15 Fang SC, Lu CY, Lee CY, et al. Decreased HIV transmission after a policy of providing free access to highly active antiretroviral therapy in Taiwan. *J Infect Dis* 2004; **190**: 879–85.
16 Hung CC, Chen MY, Hsieh SM, Sheng WH, Chang SC. Clinical spectrum, morbidity and mortality of acquired immunodeficiency syndrome in Taiwan: a 5-year prospective study. *J Acquir Immune Defic Syndr Hum Retrovirol* 2000; **24**: 378–85.
17 Alter MJ. Epidemiology of viral hepatitis and HIV co-infection. *J Hepatol* 2006; **44**: S6–9.
18 Law WP, Dore GJ, Duncombe CJ, et al. Risk of severe hepatotoxicity associated with antiretroviral therapy in the HIV-NAT Cohort, Thailand, 1996–2001. *AIDS* 2003; **17**: 2191–99.

医薬品
医薬部外品　　研究報告　調査報告書
化粧品

識別番号・報告回数			報告日	第一報入手日 2007年4月11日	新医薬品等の区分 該当なし	厚生労働省処理欄
一般的名称	①ポリエチレングリコール処理抗破傷風人免疫グロブリン ②乾燥抗破傷風人免疫グロブリン	研究報告の公表状況	第81回日本感染症学会 総会・学術講演会 ポスターP26-1	公表国 日本		
販売名 （企業名）	①テタノブリンーIH（ベネシス） ②テタノブリン（ベネシス）					

研究報告の概要

【緒言】これまで国内でのHIV-2感染症例はいずれの報告も外国籍患者であった。今回、日本人初のHIV-2感染症例を経験したので報告する。

【症例】77歳男性、36年前セネガルで輸血歴がある。2006年6月下旬、気管支喘息発作にて当院入院となった。インフォームド・コンセントの上での入院時HIVスクリーニング検査(ELISA)で、HIV抗体高値となった。その後Western Blot法により確認検査を行い、HIV-1抗体陰性HIV-2抗体陽性となった。また、ペプチド法による確認検査でも同様の結果であった。入院時のCD4数は234/μLとやや低値であったがAIDSを疑わせる症状は認められなかった。加療にて気管支喘息は軽快し入院8日目で退院となった。8月現在CD4数は827/μLとなりAIDSを発症せずに当院外来で経過観察中である。

【遺伝子解析】国立感染症研究所に依頼し、HIV-1及びHIV-2各々に特異的なgag及びnef-LTR領域を標的とするプライマーを用いたPCRによる遺伝子検査を行った、その結果、HIV-2特異的gagプライマーでのみプロウイルスDNAの増幅が確認された。更にPCR産物から得られた塩基配列の系統樹解析では、本症例はHIV-2サブタイプAに属しセネガル株(60415K株)に最も近縁であった。

【考察】輸血歴と遺伝子解析の結果から、本症例は36年前セネガルでの輸血でHIV-2に感染したと考えられる。HIV-2は一般的に発症が遅く症状が軽いとされているが、本症例が36年間AIDSを発症していない機序は極めて興味深く、現在国立感染症研究所と共同で調査中である。なお、国内におけるHIV-2感染は稀とはいえ、HIVスクリーニング検査陽性でHIV-1感染に特異的な検査が陰性である場合、HIV-2感染の可能性を考慮する必要性がある。

報告企業の意見	今後の対応
日本人初のHIV-2感染者が確認されたとの報告である。 万一、原料血漿にHIV-2が混入したとしても、HIV-1をモデルウイルスとしたウイルスバリデーション試験成績から、本剤の製造工程において十分に不活化・除去されると考えている。	本報告は本剤の安全性に影響を与えないと考えるので、特段の措置はとらない。

使用上の注意記載状況・その他参考事項等

代表としてテタノブリンーIHの記載を示す。
2. 重要な基本的注意
(1) 本剤の原材料となる血液については、HBs抗原、抗HCV抗体、抗HIV-1抗体、抗HIV-2抗体陰性で、かつALT(GPT)値でスクリーニングを実施している。更に、プールした試験血漿については、HIV-1、HBV及びHCVについて核酸増幅検査(NAT)を実施し、適合した血漿を本剤の製造に使用しているが、当該NATの検出限界以下のウイルスが混入している可能性が常に存在する。本剤は、以上の検査に適合した高力価の破傷風抗毒素を含有する血漿を原料として、Cohnの低温エタノール分画で得た画分からポリエチレングリコール4000処理、DEAEセファデックス処理等により抗破傷風人免疫グロブリンを濃縮・精製した製剤であり、ウイルス不活化・除去を目的として、製造工程において60℃、10時間の液状加熱処理及び濾過膜処理(ナノフィルトレーション)を施しているが、投与に際しては、次の点に十分注意すること。

ポスター26　HIV感染症 1

G0701500

P26-1　36年間AIDSを発症していない日本人初のHIV-2感染症の1例

聖隷横浜病院呼吸器内科[1]，
国立感染症研究所エイズ研究センター[2]，
千葉大学医学部附属病院感染症管理治療部[3]，
聖隷横浜病院腎臓・高血圧内科[4]，
聖隷横浜病院脳神経外科[5]
○内海孝信[1]，永川博康[1]，武部　豊[2]，猪狩英俊[3]，
岩崎滋樹[4]，太田誠志[5]

【緒言】これまで国内でのHIV-2感染症例はいずれの報告も外国籍患者であった．今回，日本人初のHIV-2感染症例を経験したので報告する．【症例】77歳男性．36年前セネガルで輸血歴がある．2006年6月下旬，気管支喘息発作にて当院入院となった．インフォームド・コンセントの上での入院時HIVスクリーニング検査（ELISA）で，HIV抗体高値となった．その後Western Blot法により確認検査を行い，HIV-1抗体陰性HIV-2抗体陽性となった．また，ペプチド法による確認検査でも同様の結果であった．入院時のCD4数は234/μLとやや低値であったがAIDSを疑わせる症状は認められなかった．加療にて気管支喘息は軽快し入院8日目で退院となった．8月現在CD4数は827/μLとなりAIDSを発症せずに当院外来で経過観察中である．【遺伝子解析】国立感染症研究所に依頼し，HIV-1及びHIV-2各々に特異的な*gag*及び*nef*-LTR領域を標的とするプライマーを用いたPCRによる遺伝子検査を行った．その結果，HIV-2特異的*gag*プライマーでのみプロウイルスDNAの増幅が確認された．更にPCR産物から得られた塩基配列の系統樹解析では，本症例はHIV-2サブタイプAに属しセネガル株（60415K株）に最も近縁であった．【考察】輸血歴と遺伝子解析の結果から，本症例は36年前セネガルでの輸血でHIV-2に感染したと考えられる．HIV-2は一般的に発症が遅く症状が軽いとされているが，本症例が36年間AIDSを発症していない機序は極めて興味深く，現在国立感染症研究所と共同で調査中である．尚，国内におけるHIV-2感染は稀とはいえHIVスクリーニング検査陽性でHIV-1感染に特異的な検査が陰性である場合，HIV-2感染の可能性を考慮する必要性がある．（会員外共同研究者：草川茂[2]，上西理恵[2]）

G0701501

P26-2　初回治療における硫酸アタザナビルの使用経験

独立行政法人国立病院機構大阪医療センター薬剤科[1]，
独立行政法人国立病院機構大阪医療センター免疫感染症科[2]
○吉野宗宏[1]，矢倉裕輝[1]，桑原　健[1]，富成伸次郎[2]，
椎木創一[2]，渡邊　大[2]，山本善彦[2]，上平朝子[2]，
白阪琢磨[2]

【目的】硫酸アタザナビル（ATV）はHIVプロテアーゼ阻害作用を有し，HIV感染症に用いられる薬剤である．本剤は1日1回投与の適応を持ち，服薬アドヒアランスの向上が期待できることから，治療の第一選択薬の一つとして使用されている薬剤である．今回我々は，ATV服用患者を対象に，治療効果・安全性について検討を行ったので報告する．【方法】平成16年6月から平成18年5月までに，当院で本剤の投薬を開始した未治療患者60例を対象に調査を行った．【結果】対象患者60例中，核酸系逆転写酵素阻害剤（NRTI）2剤にATV 400mgを併用した症例は7例，NRTI 2剤にATV 300mgとリトナビル（RTV）100 mgを併用した症例は53例であった．NRTIの主な併用薬はTDF＋3TC 24例，TDF＋FTC 23例であった．抗ウイルス効果について24週以上投与された症例で検討した．投薬開始後4週を経過した時点のHIV-RNA量は，平均1.9log10copies/ml減少し，24週，48週後にHIV-RNA量が検出限界未満（50copies/ml）であった症例は，それぞれ45/47，36/36であった．主な副作用は「総ビリルビン上昇」「黄疸」「黄疸眼」であったが，その多くは軽度であり，副作用が原因で他剤への変更が行われた症例は1例であった．総コレステロール（TC），中性脂肪（TG）の変化を投与前と投与24週，48週後で検討した．TCの変化率は，＋1.1%，＋1.1%，TGは，＋1.3%，＋1.1%であった．【考察】一般的にPIは脂質代謝への影響が大きく，長期服用が必要とされる抗HIV療法の問題の一つとされているが，本剤はTC，TGへの影響が少ない薬剤であると考えられた．ATVは抗ウイルス効果に優れ特に問題となる副作用も認められないことから，認容性の高いPIである思われた．