I ANTI-HIV AGENTS

A. Treatments for drug-resistant HIV coming

In high-income countries, many treatments for HIV are usually available. Despite this bounty of options, once HIV develops the ability to resist one or more treatments, future options become limited. This limitation arises because resistance to one drug in a class of anti-HIV medications often confers a degree of resistance to other members of that class.

People with HIV/AIDS (PHAs) may acquire drug-resistant HIV at the time of their infection. Or, in the average treatment-experienced person, over many years HIV gradually acquires the ability to resist the effect of therapy, becoming, in some cases, multi-drug resistant (MDR). This type of highly resistant HIV is difficult to treat.

There are several possible ways to try to deal with the problem of drug-resistant HIV. One is to design new drugs that can work against resistant virus. Another is to develop entirely new classes of anti-HIV agents.

In high-income countries, PHAs are the beneficiaries of converging research and development programs that have led to new treatment options. Here are some of them:

- Entry inhibitors – These drugs work by blocking a co-receptor called CCR5, which HIV uses to infect cells of the immune system. The entry inhibitor that is currently being released in Canada through an expanded access program is called maraviroc.

- Integrase inhibitors – These drugs work by interfering with an enzyme called integrase,
which is needed to help HIV take over an infected cell. Two integrase inhibitors are in advanced stages of testing in people: raltegravir and elvitegravir. The integrase inhibitor now being released in Canada through an expanded access program is raltegravir (Isentress, formerly known as MK-0518).

- **Protease inhibitors (PIs)** – These drugs work by interfering with the protease enzyme, also needed by HIV-infected cells to produce copies of HIV. Darunavir (Prezista) is designed to be effective against strains of HIV that are resistant to other PIs. Most PIs are taken with a small dose of a boosting agent called ritonavir (Norvir). This drug, also a PI, helps to raise and maintain levels of the PI that needs boosting. Darunavir is a new PI approved for use in Canada.

- **Non-nukes (NNRTIs)** – These drugs work by impairing the activity of another enzyme needed by HIV called reverse transcriptase. New non-nukes at an advanced stage of testing in people include TMC125 (etravirine) and TMC278 (rilpilvirine).

All of these medications may provide some benefit to PHAs who are treatment-experienced.

In this and forthcoming issues of *TreatmentUpdate*, we will present information about these drugs, many of which were discussed at length at the 4th International AIDS Society (IAS) Conference on HIV Pathogenesis, Treatment and Prevention that took place from July 22 to 25 in Sydney, Australia as well as other information from the 9th International Workshop on Adverse Drug Reactions and Lipodystrophy in HIV, that also took place in Australia in July 2007.

REFERENCE:

1. Deeks SG. Protease inhibitors as immunomodulatory drugs for HIV infection. *Clinical Pharmacology and Therapeutics* 2007 Sep;83(2):248-250.

B. Darunavir shows its strength

Any time a new anti-HIV drug is ready for the final stages of clinical testing, it is usually compared in a clinical trial against an already approved therapy. Although there are many HIV/AIDS treatment guidelines available in Western countries, one of the most comprehensive is developed by the United States’ federal health ministry, the Department of Health and Human Services (DHHS). At press time, those guidelines suggest that the following protease inhibitors (PIs) are preferred for use in the initial therapy of HIV infection:

- fosamprenavir/ritonavir (Telzir, Lexiva)
- lopinavir/ritonavir (Kaletra, Aluvia)
- atazanavir/ritonavir (Reyataz)

These guidelines are regularly revised, so expect changes to this list in the future.

Although the DHHS guidelines do offer a choice of PI to use, in practice, for the past several years, lopinavir/r has commonly been used, perhaps because of its strength and long-term effectiveness. As a result, manufacturers of anti-HIV medications who seek to supplant the role of lopinavir/r in treatment conduct clinical trials comparing their medication to that of lopinavir/r.

That was recently the case with the PI darunavir (Prezista) in a clinical trial called TITAN. In that study, moderately treatment-experienced PHAs were randomly assigned to receive either darunavir/r or lopinavir/r as part of combination therapy. After one year, more participants taking darunavir had their viral load fall below the 50-copy mark than did those taking lopinavir/r.

**Study details**

Researchers in North and South America, Europe, South Africa and Asia screened nearly 800 possible volunteers for TITAN. After narrowing their selection to a pool of 591 participants, researchers randomly assigned PHAs to receive either darunavir/r (298 PHAs) or lopinavir/r (293 PHAs).

The average profile of the entire study group at the beginning of the clinical trial was as follows:

- 21% female, 79% male
- age – 41 years
- length of HIV infection – nine years
- viral load – 20,400 copies
- CD4+ count – 232 cells
- 33% had symptoms of AIDS in the past
- 15% were co-infected with hepatitis B or C viruses
Treatment history

In this study, participants were modestly treatment-experienced, as follows:

- 52% had used four or more nukes or nucleotide analogues
- 69% had used at least one protease inhibitor
- 76% had used at least one non-nuke

Tests to assess the level of pre-existing drug resistance were conducted and researchers found that resistance to PIs was generally low.

All participants received what the study called an OBR—optimized background regimen. This consisted of anti-HIV medications that were judged to be most suitable for each individual participant based on his or her treatment history and the results of resistance testing.

Results—Effectiveness

The study was primarily designed to determine the proportion of participants whose viral load was eventually suppressed below the 400-copy mark (though there were secondary outcomes that are also interesting and will be detailed later). After one year, the results were as follows:

- darunavir/r – 77%
- lopinavir/r – 68%

A statistical analysis of this outcome suggests that darunavir/r provides superior virologic suppression to lopinavir/r.

This study was designed several years ago. Today, it is expected that new therapies are able to reduce viral load below the 50-copy mark. Using this more stringent assessment, the results were as follows:

- darunavir/r – 71%
- lopinavir/r – 60%

This difference was statistically significant. Differences between the two regimens in their ability to suppress viral load occurred as early as six months into the study.

Assessing the degree of viral load suppression that each therapy could provide is another way to examine the differences:

- darunavir/r – minus 1.95 logs
- lopinavir/r – minus 1.72 logs

This difference in viral suppression was statistically significant.

Resistance issues

The proportion of participants who developed virologic failure was as follows:

- darunavir/r – 10%
- lopinavir/r – 22%

In those participants who developed virologic failure, the proportion whose HIV became less susceptible to protease inhibitors or nukes was as follows:

- darunavir/r – 14%
- lopinavir/r – 33%

Complications and side effects

Overall, commonly reported side effects included the following:

- diarrhea
- nausea
- rash
- sore throat and sinus infections

In the darunavir/r group, the proportion of participants with these side effects was as follows:

- diarrhea – 32%
- nausea – 18%
- rash – 16%
- sore throat and sinus infection – 12%
- headache – 11%

In the lopinavir/r group, the proportion of participants with these side effects was as follows:

- diarrhea – 42%
- nausea – 21%
- sore throat and sinus infection – 11%
- rash – 7%

Overall, diarrhea was more common among lopinavir/r users and rash was more common in darunavir/r users.

Focus on rash

Overall, the proportion of rash-related side effects, regardless of severity, was as follows:

- darunavir/r – 16%
- lopinavir/r – 7%

Two participants in the darunavir/r group had a severe rash occur. However, one of them was
taking nevirapine (Viramune), a drug associated with a relatively high risk of rash. In only one of these two cases did the participant need to permanently stop taking darunavir and no one died as a result of the temporary rash.

Among people taking lopinavir/r, no one developed a serious rash.

**Development of AIDS-related infections**

Four participants in the darunavir/r group and one in the lopinavir/r group developed an AIDS-related illness as follows:

**darunavir/r**
- Kaposi’s sarcoma (KS)
- yeast infection of the mouth and throat
- progressive multifocal leucoencephalopathy (PML)
- tuberculosis (TB) in the lungs

**lopinavir/r**
- AIDS-related dementia

**Deaths**

A total of five participants died during the study—two in the darunavir/r group and three in the lopinavir/r group. The causes of death were as follows:

**darunavir/r**
- extensive KS tumours in the lungs leading to lung failure
- blood poisoning from a bacterial infection of the lungs

**lopinavir/r**
- sudden heart failure complicated by pneumonia
- sudden heart failure
- the cause of death in the third person taking lopinavir/r was not known at the time of the study analysis

**Lipids**

Levels of lipids—cholesterol and triglycerides—often increase in PHAs who take HAART, particularly combinations involving even a small dose of ritonavir. The proportion of participants in each group with moderate or highly elevated levels of lipids was as follows:

**darunavir/r**
- increased total cholesterol: 32%
- increased LDL-c (so-called “bad” cholesterol): 19%
- increased triglycerides: 19%

**lopinavir/r**
- increased total cholesterol: 29%
- increased LDL-c: 17%
- increased triglycerides: 25%

**Formulation issues**

The formulation of lopinavir/r used in this study was generally the older capsule formulation. A more stable formulation that is resistant to heat, Kaletra tablets, is in widespread use in many high-income countries. It is possible that had this formulation been available and in widespread use during the study fewer differences might have emerged between darunavir/r and lopinavir/r. However, until there is a trial using the new formulation, any theories about what might have happened are speculation.

**Summary**

Overall, this study found that combination therapy with either darunavir/r or lopinavir/r was effective in the treatment of moderately treatment-experienced PHAs. Both combinations were able to suppress viral load below the 400-copy mark. Darunavir/r appeared to be more effective than lopinavir/r at suppressing viral load below the 50-copy mark. Despite this difference, about half of the participants in each group had their CD4+ cell counts climb above the 350-cell mark. Darunavir/r was associated with an increased risk of rash, while lopinavir/r was associated with an increased risk of diarrhea. Both combinations have the potential to be an effective part of combination HIV therapy.

**REFERENCES:**


**C. Taking PEP to prevent HIV infection—results from Denmark**

Taking highly active antiretroviral therapy (HAART) soon after accidental exposure to HIV may help prevent this virus from infecting and spreading throughout the body. Using HAART
to prevent infection is called PEP—post-exposure prophylaxis.

In Denmark, researchers have been collecting information on the use of PEP (such as who used it and why) and its outcomes between 1998 and 2006.

Study details
In Denmark, PEP can only be provided by specialists working in infectious disease clinics. Before 2004, the recommended regimen for PEP was as follows:

- indinavir (Crixivan)
- AZT (zidovudine, Retrovir)
- 3TC (lamivudine, Epivir)

In 2004, the PEP regimen was changed to this:

- lopinavir/ritonavir (Kaletra)
- AZT
- 3TC

PEP is meant to be taken for 28 days or four weeks.

For their report, researchers analysed their database of information collected from surveys and laboratory test results on 632 people.

Results
A total of 374 people received PEP after a potential sexual exposure to HIV. Here is their basic profile:

- 22% female, 78% male
- 57% of the men were bisexual or gay
- PEP was started about 11 hours after potential exposure to HIV, on average

A total of 258 people received PEP following exposure to potentially infectious fluids through injuries because of needle-sticks, cuts or spills. Here is their basic profile:

- 65% female, 35% male
- these people were largely health care workers
- PEP was started an average of two hours after exposure

Over time, exposure to HIV in a health care setting ranged from between 20 and 40 cases each year. But with sexual exposure, the number of cases rose steadily year after year, with more than 80 cases occurring in 2006.

In the case of sexual exposure, unprotected anal sex (either insertive or receptive intercourse) accounted for nearly 60% of exposures.

In a small number of these cases (23 people), PEP was prescribed more than once. And in 2006, nine people who had received PEP in the past did so again. Six of these nine were gay or bisexual men.

In one of these nine men, HIV exposure led to infection. The research team noted that this man had repeated bouts of unsafe sex before, during and after his use of PEP, which may have accounted for the failure of his regimen. This last point also highlights that there are limits to the effectiveness of PEP.

Staying on a regimen
The use of HIV medications usually involves taking several pills once or twice daily. For people who are not used to this, such regimens can be difficult. HAART also has short-term side effects that can include headache, nausea, vomiting and diarrhea. Here is the breakdown of the proportion of PEP users who were able to complete their regimens:

- sexual exposure to HIV: 62% completed their regimen
- occupational exposure to HIV: 46% completed their regimen

The most common reason for discontinuing PEP prematurely was that doctors found out that the potential source of exposure was HIV negative. Another reason was the tolerability of HIV medications. Overall, the Danish report suggests the following:

- PEP is easily available in Denmark.
- Repeated use of PEP by the same person is uncommon.

It is difficult to assess the effectiveness of PEP based on the type of study design used by the Danish researchers. However, very few cases of HIV infection following exposure and PEP seem to have occurred.

The Danish team notes that “PEP can only be prescribed by a small number of infectious disease clinics with HIV treatment experience. This ensures a qualified risk assessment [following potential exposure] and a uniform and rational use of PEP.”
II COMPLICATIONS AND SIDE EFFECTS

A. Minimizing fat loss—comparing nukes

The loss of the fatty layer under the skin (subcutaneous fat) is known as lipoatrophy. This side effect is generally associated with the use of certain nukes, particularly the following:

- d4T – stavudine (Zerit)
- AZT – zidovudine (Retrovir)

Researchers in the United States studied three different combinations of nukes in PHAs who were starting their first regimen of HAART. The purpose of this study was to monitor long-term changes in subcutaneous fat among participants. The study team found that fat loss did not occur with the following combination of nukes:

- abacavir – ABC (Ziagen)
- 3TC – lamivudine (Epivir)

Study details

Researchers enrolled 308 participants with the following average profile at the start of the study:

- 20% female, 80% male
- age – 38 years
- CD4+ count – 208 cells
- HIV viral load – 100,000 copies
- 35% of participants had previously experienced an AIDS-related illness
- 62% were tobacco smokers
- 22% had hepatitis C virus (HCV) infection
- 7% had hepatitis B virus (HBV) infection

An unfortunate aspect of this study is that participants were not given one of the three nuke combinations in a random fashion. Randomization helps to reduce bias when interpreting the results of a study. Participants were divided into three groups based on the combination of nukes that was part of their regimen:

- d4T + 3TC – 63 participants
- AZT + 3TC – 192 participants
- ABC + 3TC – 53 participants

Changes in body fat were assessed by skin-fold measurements in the arms, thighs, and abdomen. Although not as precise as the use of low-dose X-ray scans called DEXA, skin-fold measurements have been used for many years to assess body composition and are much cheaper than DEXA scans.

On average, participants remained in the study for between two and three years.

**Results**

Initially, all participants gained weight, particularly fat in their limbs. However, after about the first year of therapy this changed. Specifically, participants who received regimens containing d4T or AZT experienced a similar degree of subcutaneous fat loss. However, those PHAs taking abacavir and 3TC were likely to gain a small amount of fat in their legs and arms.

**Different tissues behave differently**

An interesting aspect of this study was the finding that different parts of the body lost fat at different rates. For instance, fat loss in the upper trunk was slower than fat loss in the lower trunk. Why this happened is not yet clear.

The findings from this study confirm those from other studies in which d4T use (and, to a lesser extent, AZT) is associated with the loss of the fatty layer under the skin.

**REFERENCE:**


B. Bone changes after starting HAART

Thinning bones appear to be common in some PHAs in high-income countries. The reasons for the loss of bone density are complex and may be related to a combination of factors, including long-term HIV infection. For more details about
Researchers in Toulouse, France, undertook a study to assess changes in the bones of PHAs after they began taking HAART. Their findings suggest that the bones of some PHAs may continue to get thinner after the initiation of HAART.

**Study details**

Researchers randomly assigned participants to one of the following regimens:

- two nukes + a protease inhibitor (PI) – 36 PHAs
- two nukes + a non-nuke – 36 PHAs

At regular intervals, extensive analysis of blood samples was done. One analysis during the study assessed levels of enzymes and compounds associated with bone formation (such as bone alkaline phosphate and osteocalcin) and the breakdown of bone (such as beta cross laps). These latter substances are amino acids produced from the breakdown of connective tissue.

Bone density was measured using low-dose X-ray scans called DEXA.

The average profile of participants at the start of the study was as follows:

- age – 39 years
- weight – 68 kg/150 lbs
- body mass index – 23 (Body mass index, or BMI, is the result of dividing a person’s weight in kilograms by the square of their height in metres. This helps to give physicians a sense of how fat or thin patients are.)
- CD4+ count – 245 cells
- viral load – 79,000 copies

Commonly used nuke combinations in this study were as follows:

- AZT + 3TC
- tenofovir (Viread) + 3TC
- tenofovir + FTC (emtricitabine)
- ABC + 3TC

**Results**

At the time results were presented, 24 participants taking protease inhibitors and 25 taking non-nukes had been in the study for nine months. Other participants are at an earlier stage of the study.

In both groups, weight and BMI increased over the course of the study.

Based on lab tests, bone formation and bone breakdown increased in both groups. However, using DEXA scans, bone density of the spine decreased slightly in the PI group compared to the non-nuke group. Among participants in the non-nuke group, bone density appeared to remain stable.

Overall, this study suggests that some PHAs may develop a slight decrease in bone density after starting HAART. But here are some points to bear in mind when trying to assess the results:

- The number of participants in this study was relatively small and its conclusions can only be considered preliminary.
- A longer period of monitoring may be needed to get a more accurate sense of changes in bone density.
- Researchers did not apparently take into account common risk factors for bone loss, such as tobacco use or a history of exposure to corticosteroids, when they analysed the results. These risk factors could have had an effect on their results.

The study is continuing and more results are expected after two years.

**REFERENCE:**


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**C. Yoga for heart disease**

As HAART users age, their risk for cardiovascular disease increases. Although many medications are available to lower cholesterol levels and blood pressure, potential therapies that do not involve medications to achieve a similar effect are understudied. Because yoga is generally safe and may help reduce stress and anxiety, it is possible that this form of therapy could help reduce blood pressure.

Some researchers in the United States have been interested in a particular form of yoga called Ashtanga yoga because it is much more strenuous
than other forms of yoga. Engaging in Ashtanga yoga will likely cause people to burn more calories and strengthen muscles, perhaps faster than other forms of yoga. To find out if Ashtanga yoga might benefit PHAs, American researchers conducted a short study, finding several beneficial results.

**Study details**
The study team enrolled 41 PHAs (25% women, 75% men), all of whom were taking HAART and who had at least one risk factor for cardiovascular disease. They had the following average profile:

- length of time HIV positive – 11 years
- weight – 73 kg/161 lbs
- CD4+ count – 507 cells
- 89% of participants had a viral load below the 50-copy mark

All participants received monthly nutritional counseling from a research dietitian. PHAs were randomly assigned to one of the following groups:

- yoga – five months of individual and group instruction for Ashtanga yoga from a certified instructor. Yoga was practiced two to three times weekly.
- standard of care – besides HAART, no additional therapy

During the study, blood samples were regularly collected and assessments of body composition and blood pressure were performed.

**Results**
Only a portion of enrollees had completed the study at the time of preliminary data analysis, as follows:

- yoga – 17 participants
- standard of care – 10 participants

Among the standard of care group there were no significant changes in any of the factors measured. However, among the yoga group, researchers found a small but statistically significant reduction in the following:

- total cholesterol
- triglycerides
- blood pressure

No significant changes in CD4+ counts, viral load or blood sugar were detected between the two groups over the course of the study. Analysis of the participants’ diets suggested that they were similar.

In summary, the preliminary analysis of the study suggests that a simple and relatively inexpensive intervention—Ashtanga yoga—is safe and associated with modest improvement in some factors that affect the risk for cardiovascular disease in PHAs.

**REFERENCE:**

**D. Abacavir hypersensitivity testing results—Montreal**
The nuke abacavir (ABC, Ziagen) is also found in the following medications, co-formulated in one pill:

- Kivexa – ABC + 3TC
- Trizivir – ABC + 3TC + AZT

Abacavir is a potent and generally safe HIV medication. Importantly, ABC is not linked to changes in body shape as is d4T and, to a lesser extent, AZT. However, in up to about 8% of PHAs given abacavir, a hypersensitivity reaction can occur. For more information about this, please see our Fact Sheet available at: [www.catie.ca/facts.nsf](http://www.catie.ca/facts.nsf).

The good news is that a blood test called HLA testing is increasingly available at major infectious disease clinics in large urban centres across Canada. This blood test checks for the presence of genetic material called HLA-B*5701, which is associated with a high risk of developing this reaction. PHAs who test positive for this genetic material should not use abacavir.

Researchers at Montreal’s Clinique l’Actuel, a large community clinic caring for several thousand PHAs, recently reviewed their records to find out why some PHAs stopped using abacavir.
Their review focused on 1,052 of the clinic’s patients (8% female, 92% male), all of whom had, at some point, used abacavir. Their basic profile was as follows:

- average age – 46 years
- length of time diagnosed with HIV – 12 years

In general, the research team found that 311 PHAs stopped using abacavir. Of these, 71% did so because their doctors suspected that they might have been undergoing a hypersensitivity reaction. This judgment was made in the time before abacavir hypersensitivity testing was available. By later analyzing blood samples and testing them for the presence of HLA-B*5701, researchers found that these same 71% of PHAs did not have this genetic marker and very likely did not experience a hypersensitivity reaction to abacavir.

Testing for the genetic marker before starting abacavir therapy will greatly reduce the potential worry faced by PHAs and their doctors about the risk of a hypersensitivity reaction to this drug.

REFERENCE:

III INFECTIONS
A. Sex and hepatitis C infection in Germany

Since at least 2001, clinics in Western Europe have been reporting that some HIV positive men who were not infected with hepatitis C virus (HCV) have subsequently become co-infected with HCV. Most of these men did not engage in the injection of street drugs. To find out how these infections might have happened, researchers in Berlin and Bonn, Germany, collaborated on a large study.

Study details
Between September 2006 and January 2007, researchers recruited 22 HIV positive men who had recently become co-infected with HCV. These men were interviewed and compared with another group of 44 HIV positive men of similar age and lifestyle who did not have HCV. This second group was called the control group.

Most men in the study were between the ages of 30 and 44 years. They were extensively surveyed about their habits involving sex and substance use.

Results
Although this study had a relatively small number of participants, the research team arrived at the following conclusions:

- The transmission of HCV among men who have protected anal intercourse with men seems to take place in the context of several intersecting practices.
- Among study participants, group sex was common, particularly among men who became co-infected with HCV. (Having sex with many partners increases the risk of exposure to germs, including HCV).
- Rectal bleeding was more common during sex among men who became co-infected with HCV. (Having sex with many partners increases the risk of exposure to germs, including HCV).
- The risk of rectal injuries increased when participants used sildenafil (Viagra) and related medications, because this can prolong intercourse by the insertive partner.
- The researchers noted that many men who became co-infected with HCV reported the use of so-called “party drugs.” Exposure to these drugs, including cocaine and crystal meth, could help dry out the normally damp tissues lining the nose and anus. In turn, this could lead to bleeding when engaging in substance use or sex. Moreover, cocaine, crystal meth and other such drugs may give users a feeling of invulnerability, impairing thinking and judgment. This could cause them to be less concerned about protection from infection.
- There is also the possibility that street drugs could weaken the immune system and its defenses against HCV and other germs. This possibility is being studied.
Another possible risk factor is surgery; participants who were co-infected were more likely to report exposure to recent surgery—possibly removal of anal warts, circumcision or repairs of rectal punctures. However, more research needs to be done to assess the relation, if any, between surgery and HCV infection in these particular cases.

The German researchers noted that a complex interaction between sexual practices and the use of street drugs is apparently associated with HCV transmission. They add that HIV prevention messages need to be strengthened, going beyond warnings about unprotected anal sex. These could include at least the following:

- The use of street or “party” drugs increases the risk of transmitting many germs, including HIV and HCV. This can happen because these drugs can dry mucosal tissues, such as those in the nose and anus, leading to bleeding and infection.
- These substances also impair thinking and judgment—factors which can cause users to be less protective about their health and the health of their partner(s).
- Condoms are an important part of protecting yourself and your partners from HCV and other germs. However, other steps are needed, such as learning to disinfect sex toys before use and not sharing them. Avoiding the contamination of lubricant may also be an important step.

Researchers found that the use of condoms during anal intercourse may not be enough to provide protection from HCV. Based on their findings, additional measures are suggested. Clearly, these findings are just the first step and more interviews with recently infected PHAs need to be done to confirm these details, perhaps in other countries. Bear in mind that because this study is partially based on people’s reports about their sexual and substance-using behaviour, it may not be completely accurate.

REFERENCE:

IV CANCER

A. Rise in risk for skin cancer reported

People who have weakened immune systems, such as those who have transplanted organs or HIV infection, are at increased risk for cancer, including skin cancer.

At the beginning of the AIDS epidemic in North America, reports of one cancer affecting the skin (and later, other organs) became increasingly common. This cancer is called Kaposi’s sarcoma (KS). In 1996, when HAART became available in high-income countries, KS often regressed or went into remission as PHAs’ immune systems strengthened.

However, HAART cannot completely restore the immune system, even with prolonged use. And as PHAs age, their immune systems slowly degrade. Some researchers have noticed that PHAs may be at risk for other forms of cancer affecting the skin. To confirm these findings, researchers in San Diego conducted a study.

Study details
Researchers reviewed information collected in a database from 4,566 PHAs between the years 1987 and 2006. The study team focused on the following cancers:

- KS
- malignant melanoma (MM)
- basal cell carcinoma (BCC)
- squamous cell carcinoma (SCC)

Results
Researchers found that during the study period nearly 6% of PHAs developed a form of skin cancer. Nine PHAs developed more than one type of skin cancer as follows:

- Three PHAs developed KS after they had been diagnosed with another form of skin cancer.
- Four PHAs developed MM and two other PHAs developed SCC after first being diagnosed with a different skin cancer.

The good news is that most of the cancers (83%) occurred in the time before HAART was available and, in these cases, it was usually KS. After HAART became available, cases of skin cancer were usually diagnosed as BCC, SCC or MM.
Compared to the average HIV negative person in the United States, PHAs in this study were twice as likely to get BCC. Also, PHAs had a risk for MM that was three times greater. However, the risk of SCC was not statistically different from that of HIV negative people.

In general, PHAs with these types of skin cancer were likely to have this profile:

- 42 years old
- male
- white
- have had an AIDS-related illness

Due to these findings, the study team suggested that doctors consider screening some PHAs for skin cancer.

REFERENCE:
Disclaimers

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV-related illness and the treatments in question.

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A harm reduction booklet for HIV+ drug users.

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