TLALELETSO

BOTSWANA-UPENN PARTNERSHIP

HIV UPDATE: BOTSWANA HIV CONFERENCE

OCTOBER 2012,
ISSUE 10

BOTSWANA INTERNATIONAL HIV CONFERENCE:

PREVENTION IS THE WAY FORWARD

Tlaleletso is a monthly publication produced by the Botswana UPenn Partnership, in response to your expressed need to have accessible, digestible clinical information.

Each issue will summarize new scientific evidence and highlight recommendations in a user-friendly format. This month's Tlaleletso reviews key discussions and important research presentations from the Botswana HIV conference, which was held in Gaborone from September 19th to 22nd, 2012.

Next month's Tlaleletso will discuss HIV and Cancer. If there are other topics you would like it to cover, please send us your feedback– either on content or format.

Respectfully, Mike Reid

Between September 19th and 22nd, the Botswana HIV Clinicians Society held its 4th international HIV conference entitled, '**Prevention is the way forward.'**

The conference was attended by clinicians from across Southern Africa, as well internationally renowned researchers from North America and Europe.

There were many highlights, including a lot of academic debate about new and, sometimes contentious, HIV prevention research.

HIV PREVENTION STRATEGIES

Pre-Exposure Prophylaxis

Recent research has demonstrated that oral antivirals taken by the HIV-negative partner in a sero-discordant couple –*pre-exposure prophylaxis (PrEP)*- may reduce the risk of HIV transmission between sexual partners.

Presenters reviewed data from Botswana that demonstrated that randomized heterosexually active adults to emtricitabine/tenofovir were significantly less likely to acquire HIV compared to those individuals who received a placebo pill (Thigpen, 2012).

However, there was heated debate at the conference about whether PrEP should be made available across Botswana, despite compelling evidence, including the recent TDF2 study (See below)

BOTSWANA-UPENN PARTNERSHIP

THE TDF2 STUDY

TDF2 study randomized 1219 HIV-uninfected, heterosexually active adults to truvada or placebo for ≥ 12 months of follow-up and found that the overall protective efficacy of truvada was 62.6% (95% confidence interval: 21.5% to 83.4%; $P = .0133$). The reduction in HIV acquisition was observed in both men and women, and medication adherence was similar between the study arms (Thigpen, 2012)

UPCOMING LECTURES

October

Acute Respiratory Distress

November

Topics in HIV

HIV and Cancer

December

Holiday Quiz 2012!

PRE-EXPOSURE PROPHYLAXIS: DEBATE RAGES!

As different speakers reviewed this and similar research demonstrating the efficacy of PrEP both in Africa and elsewhere in the Northern hemisphere, there was considerable debate as to whether giving oral truvada to HIV negative patients was a good idea. Given the considerable expense, the logistical challenges, and the potential risks associated with taking the pill (including bone disease and kidney dysfunction) several researchers argued that the Botswana HIV program should focus more on identifying those individuals not yet tested for HIV and those eligible HIV infected people not yet on treatment.

PrEP also raises important ethical questions:

- What are the obligations of the Botswana government to provide such prophylaxis?
- How should resources be distributed between research, treatment, counselling, testing, primary prevention, PrEP and PEP?
- Who should have priority for prophylaxis?

Different presenters acknowledged that HIV-related stigma poses particular challenges, since this can affect decision-making. For example, one argument against provision of PrEP for groups such as sex workers "is based on the idea that providing prophylaxis expresses approval for high-risk behaviours", analogous to arguments used against needle exchanges or condom provision to teenagers.

Thus far, several studies of potential interventions to reduce HIV transmission have not led to an increase in unsafe sexual behaviours, although that issue still needs to be evaluated in the studies of PrEP.

Another issue is the perception that people choosing risky behaviours should be at lower priority for prevention than those whose risk is not affected by their behavior. However, even if personal responsibility for infection was considered in setting public-health priorities, how does one ascribe the degree of responsibility?

With efficacy studies of PrEP underway, one concern is that such programmes, if found effective, may be too expensive for the areas that have the greatest need, and many prevention programmes, of which PrEP would be part, are already underfunded.

Mark Wainberg, from McGill University, suggested that *targeted PrEP* "in regions with HIV epidemics in specific groups targeting of such groups (e.g., sex workers, partners of people known to have HIV) is probably the best strategy.

However, Mark Nelson, a researcher and clinician from the UK, argued that in areas with generalised epidemics, such as Botswana, potential populations could include almost all sexually active adults. This would be financially and logistically implausible.

Defining the procedures for access and dispensing remains a challenge. Mark Nelson raised questions about how PrEP is administered. PrEP should never be sold over the counter: the potential for misuse (for treatment as well as prevention) and resultant widespread HIV resistance is just too great.

CIRCUMCISION

Presenters reviewed three important randomized clinical trials that have demonstrated that male acquisition of HIV can be reduced by circumcision, by up to 61% (Auvert, 2005). They also presented persuasive evidence that male circumcision also reduces incidence of trichomoniasis, bacterial vaginosis and genital ulcers in women (Gray, 2006).

MOCHUDI STUDY

Dr Herman Bussman presented the initial results from an ongoing study in Mochudi. The study will examine whether starting patients on HAART when their CD4 counts are greater than 350, but their viral loads are greater than 50000 can improve outcomes and reduce transmission. The study is ongoing. However, initial results have been striking:

1. The HIV prevalence was 21% in the study population
2. 30% with CD4 >500
3. Large percentage had a high viral load
4. 35% had never been tested for HIV and of these 11% tested positive

One of the presenters presented research from JHPIEGO demonstrating that surgical circumcision was not associated with any compromise in sexual function or pleasure. Clinicians from ITECH and JHPEIGO shared data suggesting that Botswana is doing a good job of scaling up safe male circumcision, despite many logistical obstacles.

There was considerable interest in the possible non-surgical alternatives for male circumcision, including the Pre-PEX device. This device is not without its limitations – for example, it requires multiple visits to clinic for patients and the use of expensive local anaethestic cream.

BEHAVIOUR CHANGE: OUR WE LOSING THE BATTLE IN OUR UNIVERSITITES

One of the most interesting and enlightening presentations of the conference was a review of data collected for the teAIDS project, by Melissa Godwaldt describing the attitudes and behaviors of students and staff in tertiary education in Botswana. Using focus group discussions, the researchers interviewed over 4300 university students, 77% of whom were in higher education in Gaborone. The results of their extensive audit of students across numerous academic institutions, demonstrated that there remained significant lack of knowledge about HIV transmission.

The presenter shared data demonstrating that over 45% of participants had engaged in sex without a condom. Furthermore, 46% of sexually active students did not know their HIV status. Concurrency – having multiple sexual partners at the same time – remains a huge issue at the tertiary level in Botswana. The teAIDS project found that 33.7% of students were having concurrent relationships. Although 72% of students said that they had made changes to their sexual behavior since learning about HIV and AIDS, the survey clearly demonstrated that young people are still putting themselves at risk for HIV infection.

These findings raised some perplexing questions for the HIV program in Botswana. There was discussion about how to disseminate balanced and directed HIV prevention messages to students.

Preventing Complications

Since the advent of HAART, metabolic complications have become a leading cause of morbidity for patients with HIV in North America and Europe. Data was presented by several researchers to illustrate that bone disease, diabetes and non-AIDS related malignancies were rising in incidence as people were living longer on ART. Presenters shared evidence to suggest that complications, such as diabetes, were also on the rise in Botswana. As well as discussing how such metabolic complications could be prevented among people living with HIV in Botswana, several speakers presented persuasive data to support enhanced integration of HIV services with non-HIV services. This has been discussed in previous issues of Tlaleletso.

HIV RESEARCH IN BOTSWANA

There was a lot of other very interesting Botswana-based research that was presented at the conference. Below are summaries of some of the most interesting abstracts that were presented:

1. Psychosocial distress in HIV infected youth: Researchers performed an assessment of mental health in HIV-infected adolescents accessing care. They found that psychosocial dysfunction was closely related to treatment failure and questioned whether psychosocial dysfunction may be a cause of consequence of treatment failure (#003).

2. HIV as a risk factor for cardiac disease in Botswana: The authors of this report performed a cross sectional analysis of HIV infected patients attending Princess Marina Hospital. They found that of those HIV-infected patients undergoing echocardiogram 36.9% had cardiomyopathy, 21% had pericarditis, and 14% had hypertensive heart disease (#004)

1% had pericarditis, and 14% had hypertensive heart disease (#004)

3.Pneumonia in HIV-exposed uninfected children: Despite the absence of HIV infection, HIV exposed uninfected children are vulnerable to infection and increased risk of death, especially in the first two years of life. The results of this prospective cohort study demonstrated that HIV exposed children with severe pneumonia were more likely to fail treatment compared to HIV-unexposed children, although mortality was low regardless (#005).

4. Disclosing Children's HIV status to school personnel: Disclosure of children's HIV status to schools remains contentious. The researchers in this study described the prevalence and issues relating to caregiver disclosure of children's HIV status to schools in Botswana. Although 2/3 of caregivers involved had voluntarily disclosed their children's HIV status, in some cases this was involuntary and involved coercion by school staff. More discussion is necessary to ensure that a standardized policy is developed to ensure children's interests are protected.

5.Early versus delayed ART and CSF fungal clearance in adults with HIV and cryptococcal meningitis: At 3 hospitals in southern Botswana patients with cryptococcal meningitis and HIV were randomized to early initiation of ART (within 7 days) versus later initiation (after 28 days). The authors report that early ART was not associated with improved fungal clearance of CSF, but resulted in an increased risk of cryptococcal meningitis IRIS. Further research on optimal incorporation of ART in cryptococcal meningitis care is warranted.

Got a clinical question about a complicated medical patient
Or a patient with HIV?
Mike Reid
267 724 78 777
OR
Miriam Haverkamp
267 76516520

BOTSWANA-UPENN PARTNERSHIP