Journée mondiale du sida

« Tout le monde compte »

1er Décembre 2017

World AIDS Day

« Everybody counts »

HIV/AIDS remains one of the world's most significant public health challenges, particularly in low- and middle-income countries.

Using a slogan "Everybody counts", WHO is advocating for access to safe, effective, quality and affordable HIV services, medicines, diagnostics other health commodities for all people who need them.

As a result of recent advances in access to antiretroviral therapy (ART), HIV-positive people now live longer and healthier lives. In addition, it has been confirmed that ART prevents onward transmission of HIV.

An estimated 20.9 million people were receiving HIV treatment in mid-2017. However, globally, only 53% of the 36.7 million people living with HIV in 2016 were receiving ART.

Progress has also been made in preventing and eliminating mother-to-child transmission and keeping mothers alive. In 2016, almost 8 out of 10 pregnant women living with HIV, or 1.1 million women, received antiretrovirals (ARVs).

In concert with the international community, the CDBPH is celebrating the world HIV/AIDS day by providing summaries of systematic reviews on the prevention and cares on the disease.

Le VIH/sida reste l'un des principaux problèmes de santé publique dans le monde, particulièrement dans les pays à revenu faible ou intermédiaire. Sous le slogan ***«Tout le monde compte»****, l'OMS défend l'accès des personnes qui en ont besoin à des services de soins et à des produits sûrs, efficaces, de qualité et abordables, qu'il s'agisse de médicaments, de produits de diagnostic ou d'autres produits de santé.*

Grâce aux progrès récents concernant l'accès au traitement antirétroviral, les personnes séropositives vivent désormais plus longtemps et en meilleure santé. De plus, il est confirmé que ce traitement prévient la transmission du VIH.

Au milieu de 2016, 18,2 millions de personnes bénéficiaient d'un traitement antirétroviral dans les pays à revenu faible ou intermédiaire, ce qui représente 46% [43%-50%] des 36,7 millions de personnes qui vivent avec le VIH dans ces pays.

Des progrès ont également été enregistrés dans la prévention de la transmission mère-enfant et dans la survie des mères. En 2015, un peu plus de 8 femmes enceintes sur 10 vivant avec le VIH, soit 1 110 000 femmes, étaient sous traitement antirétroviral.

De concert avec la communauté internationale, le CDBPSH célèbre la Journée Mondiale du SIDA en mettant à la disposition des lecteurs, des résumés de Revues systématiques sur la prévention et la prise en charge de la maladie.

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1. Antiretroviral therapy for prevention of HIV transmission in HIV-discordant couples

Antiretroviral drugs can prevent transmission of HIV from an infected sexual partner to an uninfected one, by suppressing viral replication. We found one randomised controlled trial and nine observational studies that examined this question. Overall we found that in couples in which the infected partner was being treated with antiretroviral drugs the uninfected partners had, at worst, more than 40% lower risk of being infected than in couples where the infected partner was not receiving treatment. Since the World Health Organization (WHO) already recommends antiretroviral treatment for all persons with ≤350 CD4 cells/μL, we also examined studies that had studied couples in which the infected partners had CD4 counts higher than this level. We found that there is strong evidence from the randomised controlled trial that in this group HIV was less likely to be transmitted to uninfected partners from treated infected partners than from untreated infected partners.

La thérapie antirétrovirale pour prévenir la transmission du VIH chez les couples sérodiscordants

Les médicaments antirétroviraux peuvent prévenir la transmission du VIH d'un partenaire sexuel infecté à un partenaire non infecté, par suppression de la réplication virale. Nous avons trouvé un essai contrôlé randomisé et neuf études observationnelles étudiant cette question. Globalement, nous avons constaté que dans les couples où le partenaire infecté était traité avec des médicaments antirétroviraux les partenaires non infectés avaient, dans le pire des cas, un risque plus de 40% inférieur d'être infectés que dans les couples où le partenaire infecté ne recevait pas de traitement. L'Organisation mondiale de la Santé (OMS) recommandant déjà un traitement antirétroviral pour toute personne avec ≤ 350 cellules CD4/μL, nous avons également examiné des études qui s'étaient intéressées à des partenaires ayant une numération lymphocytaire CD4 supérieure à ce niveau. Nous avons constaté qu'il existe des preuves solides que dans ce groupe les partenaires non infectés étaient moins susceptibles de se voir transmettre le VIH par des partenaires infectés traités que par des partenaires infectés non traités.

Citation: Anglemyer A, Rutherford GW, Horvath T, Baggaley RC, Egger M, Siegfried N. Antiretroviral therapy for prevention of HIV transmission in HIV-discordant couples. *Cochrane Database of Systematic Reviews* 2013, Issue 4. Art. No.: CD009153. DOI: 10.1002/14651858.CD009153.pub3.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009153.pub3/epdf

2. When is the best time to start antiretroviral therapy in children 2 to 5 years old who have HIV infection?

Antiretroviral combination therapy (cART) has been shown to be effective in slowing down the progression of AIDS and in reducing HIV-related illnesses and death. In infants and children who are diagnosed with HIV infection and are below two years of age the World Health Organization (WHO) recommends that cART should be started immediately. In children aged 2 to 5 years the WHO 2010 recommendations stated that

treatment should be started when the body's defence system has started to weaken (as indicated by a decline in a child's CD4 cell count) or complications have occurred. This systematic review was undertaken to help inform the 2013 WHO guidelines which aimed to revise the recommendations of when to start therapy in 2 to 5 years old children. The authors identified two randomised controlled trials (RCTs) that compared immediate with deferred initiation of cART in HIV-positive children aged 1 to 12 years in Thailand or Cambodia. Additional analyses of 122 children enrolled in the two studies at ages 2 to 5 years were made available for this review. A cohort study from South Africa in HIV-positive children (median age 3.5 years) starting tuberculosis treatment and ART was also included. Results showed that we still lack enough evidence to determine whether early or late initiation of cART is best in children aged 2 to 5 years. The authors recognized the lack of evidence but highlighted the potential value of simplifying WHO recommendations to start cART in all children below five years with the goal of providing programmatic advantage to treatment programmes in resource-limited settings.

Quel est le meilleur moment pour démarrer un traitement antirétroviral chez les enfants de 2 à 5 ans qui sont infectés par le VIH ?

Il est démontré qu'une combinaison de traitements antirétroviraux (cART) est efficace pour ralentir la progression du SIDA et pour réduire les maladies et décès causés par le VIH. Pour les nourrissons et les enfants chez lesquels une infection par le VIH est diagnostiquée avant l'âge de deux ans, l'Organisation mondiale de la Santé (OMS) recommande que la cART soit mise en place immédiatement. Chez les enfants âgés de 2 à 5 ans, les recommandations de l'OMS datant de 2010 préconisent que le traitement soit commencé lorsque le système de défense de l'organisme commence à affaiblir (ce qu'indique la baisse de la numération des lymphocytes CD4) ou que de complications surviennent. La présente revue systématique a été effectuée afin de fournir des données pour les recommandations de 2013 de l'OMS, destinées à revoir les recommandations concernant le moment où le traitement doit être engagé pour les enfants de 2 à 5 ans. Les auteurs ont identifie deux essais contrôlés randomisés (ECR) comparant un début immédiat et différé de la cART chez des enfants séropositifs âgés de 1 à 12 ans en Thaïlande et au Cambodge. Les analyses d'hypophénylalaninémie de 122 enfants recrutés dans les deux études à l'âge de 2 à 5 ans ont été fournies pour cette revue. Une étude de cohorte réalisée en Afrique du Sud sur des enfants séropositifs (âge médian 3,5 ans) en début de traitement contre la tuberculose et le rétrovirus a également été incluse. Les résultats ont montrent que nous ne disposons toujours pas de preuves suffisantes pour déterminer si un démarrage précoce ou différé de la cART est préférable chez les enfants âgés de 2 à 5 ans. Les auteurs reconnaissent le manque de preuves, mais soulignent l'intérêt qu'il pourrait y avoir à simplifier les recommandations de l'OMS pour le démarrage de la cART chez tous les enfants de moins de cinq ans, dans le but de faciliter la réalisation de programmes de traitement dans des conditions de ressources limitées.

Citation: Siegfried N, Davies MA, Penazzato M, Muhe LM, Egger M. Optimal time for initiating antiretroviral therapy (ART) in HIVinfected, treatment-naive children aged 2 to 5 years old. *Cochrane Database of Systematic Reviews* 2013, Issue 10. Art. No.: CD010309. DOI: 10.1002/14651858.CD010309.pub2.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010309.pub2/epdf

3. Insufficient evidence to confirm an association between hormonal contraception and HIV acquisition

Modern contraception methods play an important role in global health, empowering women to avoid unintended pregnancy and thus reducing avoidable deaths and ill-health of mothers and babies related to unintended pregnancies. Hormonal methods are those in which women receive female sex hormones (progestogens with or without oestrogens), by mouth, injection, vaginal rings, skin patches, progestogen-containing intrauterine devices or devices implanted below the skin. It is known that monkeys treated with high doses of progestogen (higher than those used for contraception) are more likely to be infected with HIV. It is also known that hormonal contraception alters the systemic and local human immune system in ways which might increase susceptibility to HIV infection, and that progestogen contraception lowers the woman's own oestrogen levels causing thinning of the lining of the vagina. In some, but not all, observational studies, it was found that women using hormonal contraception (specifically DMPA) were more likely to acquire HIV. However, as these were not randomised trials, this effect might be related to the characteristics of women who choose to use hormonal contraception, rather than an effect of the contraceptive itself.

This review found only one ongoing trial with no data available to date. There is thus no high quality evidence available as to whether or not hormonal contraception is associated with HIV acquisition. Because of the importance of hormonal contraception for women's health, no change in practice would be justified without such evidence. Appropriate randomised trials are needed to answer this important question.

All women using non-barrier contraception should be advised that such contraception does not protect against HIV infection, and that they should take such precautions as are appropriate to their personal circumstances.

Insuffisance de preuves pour confirmer une association entre la contraception hormonale et la contraction du VIH

Les méthodes de contraception modernes jouent un rôle important dans le domaine de la santé mondiale, permettant aux femmes d'éviter les grossesses non désirées et donc de réduire les décès et les problèmes de santé évitables chez les mères et les bébés liés à des grossesses non désirées. Les méthodes hormonales sont celles parmi lesquelles les femmes reçoivent des hormones sexuelles féminines (progestatifs avec ou sans œstrogènes), par voie orale, par injection, par anneaux vaginaux, par patchs à coller sur la peau, par un progestatif contenant des dispositifs intra-utérins ou des dispositifs implantés sous la peau. Nous savons que les singes traités avec des doses élevées de progestatifs (plus élevées que celles utilisées pour la contraception) sont plus susceptibles d'être infectés par le VIH. Nous savons également que la contraception hormonale altère le système immunitaire humain systémique et local de telle manière que cela pourrait accroître la sensibilité à l'infection par le VIH et que la contraception progestative diminue les niveaux d'œstrogènes de la femme provoquant un amincissement de la muqueuse du vagin. Dans certaines études observationnelles, mais pas toutes, il a été découvert que les femmes utilisant une contraception hormonale (spécifiquement l'AMPR) étaient plus susceptibles de contracter le VIH. Cependant, comme il ne s'agissait pas d'essais randomisés, cet effet pourrait être lié à la

caractéristique des femmes qui choisissent d'utiliser une contraception hormonale, plutôt qu'à un effet de la contraception elle-même.
Cette revue n'a trouvé qu'un essai en cours sans données disponibles à ce jour. Aucune preuve de haute qualité n'est donc disponible pour déterminer si la contraception hormonale est associée à la contraction du VIH. En raison de l'importance de la contraception hormonale pour la santé de la mère, aucun changement dans la pratique ne serait justifié sans une telle preuve. Des essais randomisés appropriés sont nécessaires pour répondre à cette importante question.
Toutes les femmes utilisant une contraception sans méthode barrière doivent être informées qu'une telle contraception ne protège pas contre l'infection par le VIH et qu'elles devraient prendre les précautions appropriées à leur situation personnelle.

Citation: Hofmeyr GJ, Singata M, Sneden J. Hormonal contraception for women exposed to HIV infection. Cochrane Database of Systematic Reviews 2014, Issue 5. Art. No.: CD009741. DOI: 10.1002/14651858.CD009741.pub2.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009741.pub2/epdf

4. The use of the telephone for the delivery of HIV prevention interventions

Although HIV infection can be prevented, every year a large number of people become newly infected with HIV. Interventions that teach people about HIV can change their attitudes and behaviour, and thereby prevent new HIV infections. These interventions often require people to go to health facilities, but barriers such as a lack of money, transport problems or stigma attached to HIV-positive serostatus can limit people's access to HIV prevention interventions. Landline or mobile phones calls can be used to potentially more effectively deliver HIV prevention interventions, because they may save people's time, reduce costs and give people easier access to healthcare. The aim of this review was to assess the effectiveness HIV prevention interventions delivered by phone calls compared to the standard way of delivering care. After a comprehensive search of various scientific databases and other resources, we found only one relevant study. This study was done in sexual assault services in South Africa. Study participants were women and girls who were given medication to prevent HIV infection (so called 'post-exposure prophylaxis' or 'PEP') after they had been raped. The participants were divided into two groups: one group of participants only received standard care and participants in the other group were given standard care and support via telephone calls to help them take their HIV prevention medication. Overall, only about one third of the participants took their HIV prevention medication for 28 days. The participants who received the phone calls were not more likely to take their medication than participants who only received standard care. Also, the phone calls did not decrease the number of participants with depression and did not increase the number of participants who read an information pamphlet or returned to collect HIV prevention medication. Only a higher percentage of participants who received the calls used a medication diary compared to the participants who did not receive the calls. No harmful effects of this intervention were reported. We could not find any information about other relevant outcomes, such as participants' and healthcare providers' satisfaction with the telephone intervention or costs. We urgently need more studies conducted in various settings comparing the effectiveness of the phone calls to other ways of delivering HIV prevention interventions to prevent new HIV infections.

Utilisation du téléphone pour réaliser des interventions de prévention du VIH

Bien qu'il soit possible de prévenir l'infection par le VIH, chaque année un grand nombre de personnes deviennent nouvellement séropositives. Les interventions qui informent le public sur le VIH peuvent modifier leurs attitudes et leur comportement, et ainsi prévenir de nouvelles infections par le VIH. Ces interventions nécessitent souvent que les personnes se rendent dans des établissements de santé, mais les obstacles tels que le manque d'argent, les problèmes de transport ou la stigmatisation autour de la séropositivité par le VIH peuvent limiter l'accès du public aux interventions de prévention du VIH. Les appels sur des lignes fixes ou mobiles peuvent être utilisés pour réaliser des interventions de prévention du VIH potentiellement plus efficaces, parce qu'ils peuvent faire gagner du temps aux personnes, réduire les coûts et faciliter l'accès aux soins de santé.

L'objectif de la présente revue était d'évaluer l'efficacité des interventions de prévention du VIH réalisées par appels téléphoniques en comparaison avec le moyen standard de fournir des soins. Après avoir effectué des recherches exhaustives dans plusieurs bases de données scientifiques et d'autres ressources, nous n'avons trouvé qu'une seule étude pertinente. Cette étude a été menée dans des services aux victimes d'agression sexuelle en Afrique du Sud. Les participants à l'étude étaient des femmes et des filles recevant un traitement destiné à prévenir l'infection par le VIH (dit « prophylaxie post-exposition » ou « PPE ») suite à un viol. Les participantes étaient divisées en deux groupes : un groupe de participantes ne recevaient que les soins standard et les participantes de l'autre groupe recevaient les soins standard et un soutien par des appels téléphoniques ayant pour but de les aider à prendre leur traitement de prévention contre le VIH. Globalement, seules environ un tiers des participantes prenaient leur traitement de prévention contre le VIH pendant 28 jours. Les participantes qui recevaient les appels téléphoniques n'étaient pas davantage susceptibles de prendre leur traitement que les participantes qui ne recevaient que les soins standard. Par ailleurs, les appels téléphoniques ne réduisaient pas le nombre de participantes souffrant de dépression et n'augmentaient pas le nombre de participantes qui lisaient une brochure d'information ou qui retournaient prendre leur traitement de prévention contre le VIH. On peut seulement noter qu'un pourcentage plus élevé de participantes qui recevaient les appels utilisaient un carnet de traitement par rapport aux participantes ne recevant pas les appels. Aucun effet nocif de cette intervention n'a été signalé. Nous n'avons pas pu trouver d'informations sur les autres résultats pertinents, tels que la satisfaction des participantes et des prestataires de soins de santé quant à l'intervention téléphonique et aux coûts. Nous avons un besoin urgent d'études supplémentaires réalisées dans divers cadres, comparant l'efficacité des appels téléphoniques aux autres moyens de réaliser des interventions de prévention du VIH pour prévenir les nouvelles infections par le VIH.

Citation: van-Velthoven MHMMT, Tudor Car L, Gentry S, Car J. Telephone delivered interventions for preventing HIV infection in HIV-negative persons. *Cochrane Database of Systematic Reviews* 2013, Issue 5. Art. No.: CD009190. DOI: 10.1002/14651858.CD009190.pub2.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009190.pub2/epdf

5. The effectiveness of community interventions to promote condom use in the prevention of HIV and sexually transmitted infections

Bakground
Since the advent of the HIV/AIDS epidemic in the 1980s, condom promotion has become one of the most widely used interventions to prevent transmission of HIV and sexually transmitted infections (STIs). However, despite widespread promotion of condom use globally, new cases of HIV and other STIs either remain high or continue to rise in some particular regions and settings across the world. It is believed that by modifying the environment in which people live, it is possible to improve access and use of condoms on a large scale so that the transmission of HIV and other STIs decreases. This review aimed to assess if this theory was correct.
Methods
We screened all relevant literature from January 1980 to April 2014. Two independent authors selected and assessed the trials.
Results
We obtained nine studies, involving 75,891 participants and with a duration raging from one to nine years. Seven of these studies were conducted in Sub-Saharan Africa, one in Peru, and one in a multi-country location. Condom promotion was implemented in all the studies. Our results did not provide clear evidence that condom promotion in these specific contexts led to a decrease in the transmission of HIV and other STIs. However, knowledge about HIV and other STIs increased, as did reported condom use. A likely reason for the negative results in this review is that sexual behaviors are difficult to change. For example, we found no difference in the number of sexual partners after the intervention was implemented. Also, if there is not consistent condom use the risk of transmission remains for HIV and other STIs. The quality of the evidence was deemed to be moderate.
Conclusions
Our findings should be interpreted with caution since most of the studies in the present review were carried out in Sub-Saharan Africa, region that is very diverse, and whose social and cultural characteristics are different from those in other developing nations. Thus, our results present a limited generalizability.

L'efficacité des interventions communautaires pour promouvoir l'utilisation du préservatif dans la prévention du VIH et des infections sexuellement transmissibles

Contexte
Depuis l'avènement de l'épidémie de VIH/sida dans les années 1980, la promotion du préservatif est devenue l'une des interventions les plus couramment utilisées pour prévenir la transmission du VIH et des infections sexuellement transmissibles (IST). Cependant, malgré une promotion importante de l'utilisation du préservatif à l'échelle mondiale, l'incidence de nouveaux cas de VIH et d'autres IST reste élevée ou continue d'augmenter dans certains contextes et régions à travers le monde. On pense que la modification de l'environnement dans lequel vivent les gens peut permettre d'améliorer l'accès aux et l'utilisation des préservatifs à grande échelle, de sorte que la transmission du VIH et des autres IST diminue. Cette revue cherchait à évaluer si cette théorie était correcte.

Méthodes
Nous avons passé au crible toute la littérature pertinente de janvier 1980 à avril 2014. Deux auteurs indépendants ont sélectionné et évalué les essais.
Résultats
Nous avons obtenu neuf études, impliquant 75 891 participants et avec des durées allant de un à neuf ans. Sept de ces études ont été menées en Afrique subsaharienne, une au Pérou, et une a été réalisée dans plusieurs pays. La promotion du préservatif a été mise en œuvre dans toutes les études. Nos résultats ne démontrent pas clairement que la promotion du préservatif dans ces contextes spécifiques ait conduit à une diminution de la transmission du VIH et des autres IST. Cependant, les connaissances sur le VIH et les autres IST ont augmenté, de même que l'utilisation déclarée de préservatifs. Une raison probable pour les résultats négatifs de cette revue est que les comportements sexuels sont difficiles à changer. Par exemple, nous n'avons trouvé aucune différence dans le nombre de partenaires sexuels suite à la mise en œuvre de l'intervention. Aussi, si l'utilisation du préservatif n'est pas systématique, le risque de transmission du VIH et d'autres IST persiste. La qualité des preuves a été jugée modérée.
Conclusions
Nos résultats doivent être interprétés avec prudence, car la plupart des études dans cette revue ont été réalisées en Afrique subsaharienne, une région très diversifiée, dont les caractéristiques sociales et culturelles sont différentes de celles des autres pays en développement. Ainsi, nos résultats présentent une généralisabilité limitée.

> **Citation:** Moreno R, Nababan HY, Ota E, Wariki WMV, Ezoe S, Gilmour S, Shibuya K. Structural and community-level interventions for increasing condom use to prevent the transmission of HIV and other sexually transmitted infections. *Cochrane Database of Systematic Reviews* 2014, Issue 7. Art. No.: CD003363. DOI: 10.1002/14651858.CD003363.pub3. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003363.pub3/epdf

6. School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents

Cochrane researchers conducted a review of the effects of school-based interventions for reducing HIV, sexually transmitted infections (STIs), and pregnancy in adolescents. After searching for relevant trials up to 7 April 2016, they included eight trials that had enrolled 55,157 adolescents.
Why is this important and how might school-based programmes work?
Sexually active adolescents, particularly young women, are at high risk in many countries of contracting HIV and other STIs. Early unintended pregnancy can also have a detrimental impact on young people's lives.
The school environment plays an important role in the development of children and young people, and curriculum-based sexuality education programmes have become popular in many regions of the world. While there is some evidence that these programmes improve knowledge and reduce self-reported risk taking, this review evaluated whether they have any impact on the number of young people that contracted STIs or on the number of adolescent pregnancies.
What the research says
Sexual and reproductive health education programmes

As they are currently configured, educational programmes alone probably have no effect on the number of young people infected with HIV during adolescence (low certainty evidence). They also probably have no effect on the number of young people infected with other STIs (herpes simplex virus: moderate certainty evidence; syphilis: low certainty evidence), or the number of adolescent pregnancies (moderate certainty evidence).

Material or monetary incentive-based programmes to promote school attendance

Giving monthly cash, or free school uniforms, to encourage students to stay in school may have no effect on the number of young people infected with HIV during adolescence (low certainty evidence). We do not currently know whether monthly cash or free school uniforms will reduce the number of young people infected with other STIs (very low certainty evidence). However, incentives to promote school attendance may reduce the number of adolescent pregnancies (low certainty evidence).

Combined educational and incentive-based programmes

Based on a single included trial, giving an incentive such as a free school uniform combined with a programme of sexual and reproductive health education may reduce STIs (herpes simplex virus; low certainty evidence) in young women, but no effect was detected for HIV or pregnancy (low certainty evidence).

Authors' conclusions

There is currently little evidence that educational programmes alone are effective at reducing STIs or adolescent pregnancy. Incentive-based interventions that focus on keeping young people, especially girls, in secondary school may reduce adolescent pregnancy but further high quality trials are needed to confirm this.

Citation: Mason-Jones AJ, Sinclair D, Mathews C, Kagee A, Hillman A, Lombard C. School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents. *Cochrane Database of Systematic Reviews* 2016, Issue 11. Art. No.:CD006417. DOI: 10.1002/14651858.CD006417.pub3.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006417.pub3/epdf

7. HIV prevention advice for people with serious mental illness

The human immunodeficiency virus (HIV) is a condition in humans in which our immune systems steadily begins to fail and allows life-threatening infections and cancers. People with mental illness have higher than usual rates of HIV than in the general population. Despite this, UK national strategies around sexual health and HIV prevention do not state that people with serious mental illness are a high risk group. A significant number of people with mental health problems are sexually active and engage in HIV-risk behaviours such as having multiple sexual partners, not using condoms and trading sex for money or drugs. In addition, during relapse, mental illness may lead people to engage in practices they would not usually be engaged in.

The provision of HIV prevention advice could enhance the physical and social well being of people with mental health problems. HIV health advice can take many forms. Advice is the active provision of information. It has an education component and is delivered in a gentle and non-patronising manner. Advice from a healthcare professional can have a positive impact on behaviour and may motivate people to seek further support and treatment.

The review's aim was to assess the potential beneficial or harmful effects of HIV prevention advice in people with serious mental illness (SMI). A search for randomised trials comparing HIV prevention advice with standard care for people with SMI was run in January 2012 and July 2016. However, no studies or trials were found. Policy makers, health professionals, researchers and people with mental health problems need to collaborate to produce evidence-based guidance on how best to provide advice for people with serious mental illness in preventing the spread of HIV. Better guidance and information about HIV in people with mental illness could be found by conducting well-designed, simple and large studies on this important topic.

Citation: Wright N, Akhtar A, Tosh GE, Clifton AV. HIV prevention advice for people with serious mental illness. *Cochrane Database of Systematic Reviews* 2016, Issue 9. Art. No.: CD009639. DOI: 10.1002/14651858.CD009639.pub3.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009639.pub3/epdf

8. Family planning programs for women living with HIV

Background

Family planning services can help women with HIV use birth control and prevent unwanted pregnancies. People with HIV are living longer due to better treatment. More HIV-positive women will want to choose whether and when to have a child.

Methods

We ran computer searches for studies of family planning (FP) programs for HIV-positive women until 2 August 2016. The services could be compared to a different program, usual care, or no counseling. Studies could also compare HIV-positive and HIV-negative women. We tried to find results adjusted for factors that affect the outcomes. Otherwise, we used unadjusted data. We assessed the research quality.

Results

We included three new studies for a total of 10. These studies from seven African countries had 16,116 participants. Three studies compared an enhanced FP program versus usual care, three looked at FP services combined with HIV care, and four studied HIV-positive versus HIV-negative women.

For four studies of good quality, the special program was related to birth control use or pregnancy. In Nigeria, sites combined FP and HIV services. Women with enhanced FP services used modern birth control more often than women with basic FP services. A study in Kenya compared FP combined with HIV care versus referral to a separate FP clinic. Women with combined services used more effective birth control more often than those referred elsewhere for FP. One study in Kenya, Namibia, and Tanzania tested an HIV prevention and FP program. Women with the special program in Tanzania used effective birth control more often than women who had usual care. Also, they were more likely to report condom use during the most recent sex. Overall, women with the prevention program were less likely to have had unprotected sex in the past two weeks. A study from Côte d'Ivoire combined HIV testing with FP services. Pregnancy rates were similar for HIV-positive and HIV-negative women, but HIV-positive women had fewer unwanted pregnancies.

Authors' conclusions

Studies since 2009 were better quality than those from the 1990s. Training on FP and counseling was more common, which could strengthen the FP services. Research was still

limited on birth control counseling for HIV-positive women. Better counseling methods would help women choose and use a birth control method. The need is especially great in areas with few resources, such as HIV clinics.

> **Citation**: Lopez LM, Grey TW, Chen M, Denison J, Stuart G. Behavioral interventions for improving contraceptive use among women living with HIV. Cochrane Database of Systematic Reviews 2016, Issue 8. Art. No.: CD010243. DOI: 10.1002/14651858.CD010243.pub3. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010243.pub3/epdf

9. Interventions to help people living with HIV and AIDS to stop using tobacco

Background: Tobacco use is common amongst people living with HIV and AIDS (PLWHA); it causes a range of health problems and accounts for many deaths. There is good evidence about interventions to help people quit tobacco use in the general population, however the effectiveness in PLWHA was not known.
Methods: We reviewed the available evidence from trials to help PLWHA stop using tobacco. This evidence is correct up to June 2015. We conducted analyses of whether people were able to successfully quit tobacco use in the long-term (six months and over) and short-term (measured at less than six months).
Results: We found 14 relevant studies including over 2000 participants. All studies, except one, were conducted in the United States (US). All studies compared a behavioural intervention with medication, to a control group. The behavioural intervention was delivered via a range of methods including face-to-face, telephones, computers, and text messages. Nicotine replacement therapy or varenicline (medications that help tobacco users quit) was also given. Control participants typically received a less intensive, brief behavioural intervention, and the same medication as the intervention group. Six studies of moderate quality evidence investigated long-term abstinence; they did not show clear evidence of benefit of the more intense intervention. Eleven studies of very low quality evidence investigated short-term abstinence. The evidence suggested that a more intense intervention combining behavioural support and medication might help people to quit in the short-term.
Quality of the evidence: The quality of the evidence was judged to be moderate for the long-term abstinence outcome and very low for the short-term abstinence outcome, and so further research is needed to increase our confidence in our findings.

Les interventions visant à aider les personnes atteintes du VIH et du SIDA à arrêter la consommation de tabac

Contexte : *La consommation de tabac est fréquente chez les personnes vivant avec le VIH et le SIDA (PVVIH), celle-ci provoque une gamme de problèmes de santé et représente la source de nombreux décès. Bien qu'il existe des preuves de bonne qualité concernant les interventions visant à aider les gens à arrêter de consommer du tabac, ces preuves se focalisent sur la population générale ; l'efficacité de ces interventions pour les PVVIH n'est pas connue.*
Méthodes *: Nous avons examiné les preuves disponibles provenant d'études cliniques pour aider les PVVIH à arrêter de consommer du tabac. Nous avons donc réalisé des analyses nous permettant de savoir si les personnes incluses dans ces études ont pu arrêter la consommation de*

tabac sur le long terme (six mois et plus) ou à court terme (moins de six mois) avec succès. Nos données sont à jour à la date de juin 2015.

***Résultats** : Nous avons trouvé 14 études pertinentes portant sur plus de 2000 participants. Toutes les études, sauf une, ont été menées aux États-Unis (US). Toutes les études comparaient une intervention comportementale associée à des médicaments à un groupe témoin (groupe de contrôle). L'intervention comportementale était administrée au travers d'un éventail de méthodes telles que des rencontres en face à face, des appels téléphoniques, des conversations sur des supports informatiques, et des messages textuels. Une thérapie de substitution nicotinique ou de la varénicline (des médicaments qui aident les fumeurs à arrêter de fumer) ont également été administrés aux participants du groupe d'intervention. Les participants du groupe de contrôle ont généralement reçu une intervention comportementale moins intensive, plus brève, et le même médicament que le groupe d'intervention. Six études portant sur des preuves de qualité modérée ont étudié l'abstinence à long terme ; celles-ci n'ont pas montré de preuve claire d'un bénéfice de l'intervention plus intensive. Onze études portant sur des preuves de très faible qualité examinaient l'abstinence à court terme. Les preuves suggéraient qu'une intervention plus intense combinant un soutien comportemental et des médicaments pourrait aider les personnes à arrêter de fumer à court terme.*

***Qualité des preuves :** La qualité des preuves concernant l'efficacité des interventions ayant pour but l'abstinence à long terme a été jugée comme étant modérée et très faible pour l'abstinence à court terme. De futures recherches sont nécessaires pour augmenter notre degré de confiance dans nos résultats.*

Citation: Pool ERM, Dogar O, Lindsay RP, Weatherburn P, Siddiqi K. Interventions for tobacco use cessation in people living with HIV and AIDS. Cochrane Database of Systematic Reviews 2016, Issue 6. Art. No.: CD011120. DOI: 10.1002/14651858.CD011120.pub2. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011120.pub2/epdf

10. Interventions for improving employment outcomes for workers with HIV

Background

For people living with HIV (HIV+), losing their job can make it even harder to cope with the illness. This review aimed to assess how we can prevent HIV+ people from losing their jobs or help them return to work. There are three approaches to achieve these aims. The first one is to use drugs, meaning antiretroviral therapy, to keep the disease and its symptoms from getting worse. The second is to make changes to work tasks or the work environment. The third is to offer psychological support to help the HIV+ person cope better with their condition, especially at work. We included studies that assessed the effects of one or more of these approaches. The effect of interventions can be measured as whether HIV+ persons are employed or not, and as the number of days or hours HIV+ persons were able to work following an intervention.

Studies we found

We found five controlled before-after (CBA) studies from South Africa, India, Uganda, and Kenya and one randomized controlled trial from the USA. The studies included over 48,000 participants. Five studies examined antiretroviral therapy and one study examined vocational interventions as a way of improving return to work in HIV+ people.

Key findings

The five CBA studies found that antiretroviral therapy interventions may increase employment outcomes in HIV+ people. One study assessed the effect of making changes to work tasks or the work environment but did not report enough data to say if it helped or not. We found no studies on psychological support to help HIV+ people cope better.

Quality of the evidence

Overall, we found very low-quality evidence because the included studies all had a high risk of bias.

Conclusion

We found very low-quality evidence that antiretroviral therapy interventions could improve employment outcomes for HIV+ people. We need high-quality, randomized trials to find out if pharmacological, vocational, and psychological interventions can improve employment outcomes for HIV+ people.

Citation: Robinson R, Okpo E, Mngoma N. Interventions for improving employment outcomes for workers with HIV. *Cochrane Database of Systematic Reviews* 2015, Issue 5. Art. No.: CD010090. DOI: 10.1002/14651858.CD010090.pub2. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010090.pub2/epdf

11. Low dose versus high dose stavudine for treating people with HIV infection

Stavudine has been the most widely used antiretroviral agent as part of the combination therapy for treating HIV-1 infection in low-income countries. The use of stavudine has been associated with complications of redistribution of fat in the body, abnormalities in insulin and lipids, lactic acidosis and nerve problems. Some of these complications may be life-threatening. Strategies to avoid or reduce the risk of these complications have included using alternative drugs where available or using lower doses of the stavudine.

The comprehensive search strategy developed by the Cochrane HIV/AIDS Review Group was used to identify trials that compared the safety and efficacy in suppressing the viral load of low dose versus high dose stavudine in the context of treating HIV-1 with combination antiretroviral therapy. The searches covered the period 1996 to 2014.The search identified 3952 trials and only three met the inclusion criteria, all the included trials were conducted in developed countries, the number of participants ranged from 24 to 92 and the majority were male. The efficacy of suppressing the viral load was found to be the same in all the trials whether high dose or low dose of stavudine was used. McComsey 2008 and Milinkovic 2007 demonstrated a reduction in bone mineral density (BMD), reduction in limb fat and an increase in triglycerides in the high dose arms. While there was no demonstration of a difference in efficacy of viral load suppression between high dose and low dose stavudine in the included trials, participants included in these trials were already treated with antiretroviral therapy and had suppressed viral load. The fact that participants already had suppression of the viral load and the studies were small, meant it would be difficult to demonstrate the differences in viral load suppression between the two groups. The studies did not indicate that any participants discontinued treatment due to adverse events.

This review identified only trials that tested the safety and efficacy in suppressing the viral load of low dose compared to high dose stavudine. These trials were small, conducted in developed countries and included participants with suppressed viral loads that had been on antiretroviral treatment for a long time. Individual results from the trials have not

identified a clear advantage in viral load suppression or safety between low and high dose stavudine.Studies that evaluate the safety and efficacy in viral load suppression need to be conducted particularly in developing countries where stavudine is still being used and probably needed to either sustain treatment programs or where alternatives are limited.

> **Citation:** Magula N, Dedicoat M. Low dose versus high dose stavudine for treating people with HIV infection. *Cochrane Database of Systematic Reviews* 2015, Issue 1. Art. No.: CD007497. DOI: 10.1002/14651858.CD007497.pub2. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007497.pub2/epdf

12. Hepatitis B virus vaccine for People Living with HIV/AIDS

Study Question

This review seeks to determine whether vaccine for hepatitis B virus is effective in protecting people who have HIV against hepatitis B virus infection. It also seeks to determine if the vaccine is safe in people living with HIV.

Background

Hepatitis B virus infection can be acquired through contact with body fluids of infected people. Hepatitis B virus infection manifests with fever, yellowness of the eyes, abdominal pain and fatigue, but it can also be without symptoms especially in long standing infections. It can cause a persisting infection which can lead to liver complications and death. Hepatitis B virus infection and HIV infection are common in poorer countries and in these countries vaccines are not readily available. People living with HIV may not respond well to hepatitis B virus infection because of the weak ability for their bodies to develop resistance.

Study Characteristics

Our search for eligible papers was updated in August 2014 and we found one trial with 26 adult participants in Spain. The study sought to test if hepatitis B virus vaccine was better than placebo in preventing PLHIV from getting hepatitis B.

Key Results

The single study in this review showed improved immunity against hepatitis B among people living with HIV and taking antiretroviral therapy at 12 months. This immunity was lost once they stopped taking antiretroviral therapy. No side-effects were reported.

Quality of Evidence

The quality of evidence was assessed as very low.

> **Citation:** Okwen MP, Reid S, Njei B, Mbuagbaw L. Hepatitis B vaccination for reducing morbidity and mortality in persons with HIV infection. *Cochrane Database of Systematic Reviews* 2014, Issue 10. Art. No.: CD009886. DOI: 10.1002/14651858.CD009886.pub2. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009886.pub2/epdf

13. Using antiretroviral medication to prevent transmission of HIV from mother-to-child during breastfeeding

Worldwide, the primary cause of human immunodeficiency virus (HIV) infection in children is mother-to-child transmission (MTCT). MTCT of HIV can occur during pregnancy, around the time of delivery, or through breastfeeding. Great strides have been made in reducing MTCT during pregnancy and around the time of delivery. However, without

intervention, a significant proportion of children born to HIV–infected mothers acquire HIV through breastfeeding.

Where affordable, feasible, acceptable, sustainable, and safe (AFASS) alternatives to breast milk are available, it is recommended that HIV-infected mothers do not breastfeed. However, for a substantial number of HIV-infected women in the developing world, complete avoidance of breastfeeding is not AFASS. These mothers are counseled to practice exclusive breastfeeding (giving a child only breast milk and no additional food, water, or other fluids). Provision of antiretrovirals (ARVs) either to the mother or to the child during breastfeeding represent potential interventions to reduce the risk of HIV transmission to breastfeeding children. This review explores the available evidence regarding the efficacy and safety of ARV prophylaxis regimens to reduce breast milk transmission of HIV.

> **Citation**: White AB, Mirjahangir JF, Horvath H, Anglemyer A, Read JS. Antiretroviral interventions for preventing breast milk transmission of HIV. Cochrane Database of Systematic Reviews 2014, Issue 10. Art. No.: CD011323. DOI: 10.1002/14651858.CD011323.
> http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011323/epdf

14. Vitamin A supplements for reducing mother-to-child transmission of HIV infection

What is the aim of this review?

The main aim of this Cochrane Review was to assess the effects of giving vitamin A supplements to HIV-positive women, during pregnancy or after delivery, or both, on the risk of mother-to-child transmission of HIV infection. Cochrane researchers collected and examined all relevant studies to answer this question and included five trials. This is an update of a review last published in 2011.

What is the key message of this review?

Giving vitamin A supplements to HIV-positive women, during pregnancy or after delivery, or both, probably makes little or no difference to the risk of mother-to-child transmission of HIV (*moderate certainty evidence*).

What are the main results of the review?

Five trials met the inclusion criteria of the review. Two trials were from South Africa and one trial each from Malawi, Tanzania, and Zimbabwe. The trials compared women receiving vitamin A supplements to women not receiving such supplements. None of the participants received antiretroviral therapy (ART).

The review shows that in women living with HIV infection and not on ART:

- Giving vitamin A supplements to HIV-positive women during pregnancy, immediately after delivery, or both, probably has little or no effect on the risk of mother-to-child transmission of HIV (*moderate certainty evidence*) and may have little or no effect on child death by two years of age (*low certainty evidence*);
- Giving vitamin A supplements to HIV-positive women during pregnancy may increase the mean birthweight (*low certainty evidence*) and probably reduces the number of low birthweight babies (*moderate certainty evidence*), but it is uncertain whether the intervention has an effect on the number of preterm births, stillbirths, or deaths among the women (*very low certainty evidence*).

The intervention has largely been superseded by ART, which is widely available and effective in preventing mother-to-child transmission of HIV.

> **Citation:** Wiysonge CS, Ndze VN, Kongnyuy EJ , Shey MS. Vitamin A supplements for reducing mother-to-child HIV transmission. Cochrane Database of Systematic Reviews 2017, Issue 9. Art. No.: CD003648. DOI: 10.1002/14651858.CD003648.pub4. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003648.pub4/epdf

15. Isoniazid prophylaxis for preventing active tuberculosis and death in HIV-positive children

What was the aim of this review?

To summarise the effects of isoniazid prophylaxis on TB, death, and adverse effects in HIV-positive children.

Key messages

In areas of high tuberculosis endemicity, isoniazid prophylaxis prevents active TB and death in HIV-positive children who are not on ART.

We conducted a review to assess the effect of TB medication on active TB or death and its safety in HIV-positive children.

What was studied in the review?

TB is a common cause of severe lung disease and death in HIV-positive children. Childhood TB is common in poor countries, especially those with a coexisting burden of HIV/AIDS disease. HIV-positive children have a higher risk of developing TB than HIV-negative children. Isoniazid prevents TB in HIV-positive adults and is currently used in children who are at high risk of developing TB disease after exposure to someone with TB. However, there is limited information on the effect of isoniazid medication in reducing active TB or death if given to HIV-positive children without known TB contact.

We searched for studies up to 17 February 2017, and found three studies published between 2007 and 2014 that addressed the effect of isoniazid medication compared to no medication on active TB and death in 991 HIV-positive children, below the age of 13 years. Most of the children were on antiretroviral therapy (ART) and the studies were conducted in South Africa and Botswana. The median length of follow-up ranged from 5.7 to 34 months.

What are the main results of the review?

In HIV-positive children not taking ART, isoniazid medication reduced the number of children developing active TB by 69% (*low certainty evidence*), and death by 54% (*low certainty evidence*).

One trial was conducted in HIV-positive children taking ART, and this did not detect any benefit or harm of isoniazid (*very low certainty evidence)*.

The number of children with adverse effects were similar in children receiving isoniazid medication as the control group in both children on ART and not on ART.

How up to date is the review?

The review authors searched for studies published up to February 2017.

> **Citation:** Zunza M, Gray DM, Young T, Cotton M, Zar HJ. Isoniazid for preventing tuberculosis in HIV-infected children. Cochrane Database of Systematic Reviews 2017, Issue 8. Ar t. No.: CD006418. DOI: 10.1002/14651858.CD006418.pub3. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006418.pub3/epdf

16. Effectiveness of EFV compared to NVP in the suppression of HIV infection when used as part of initial three-drug combination

Research question

For people living with HIV who have never received antiretroviral therapy (ART), which drug is more effective in suppressing HIV infection in combination with two nucleoside reverse transcriptase inhibitors (NRTI): efavirenz (EFV) or nevirapine (NVP)?

Background

The introduction of highly active ART as treatment for HIV infection has greatly reduced mortality and morbidity for adults and adolescents living with HIV around the world. The recommended initial treatments for HIV infection include two drugs from a class of drugs known as NRTI and one from a related class of drugs called non-nucleoside reverse transcriptase inhibitors (NNRTI). The two NNRTIs most commonly used are NVP and EFV. However, NVP can cause liver damage and severe rash, both of which can be fatal. EFV may also cause a rash, impair mental function, and cause foetal malformations.

Main results

Cochrane researchers examined the available literature up to 12 August 2016 and identified 12 randomized controlled trials, with a total of 3278 people, that met the inclusion criteria of this review. None of the included trials included children. Four trials included people who were also receiving treatment for tuberculosis. There was little or no difference in suppression of HIV infection (high quality evidence), probably little or no difference in mortality, progression to AIDS, stopping treatment early and changes in blood cells affected by HIV (moderate quality evidence). There may be little or no difference in treatment failure (low quality evidence). We are uncertain whether there is a difference in side-effects (very low quality evidence). No studies were found that looked at sexual transmission of HIV. Development of drug resistance is probably slightly less in the EFV group (moderate quality evidence). When the side effects were examined individually, EFV probably caused more impaired mental function (6% in the EFV group and 2% in the NVP group; moderate quality evidence), while NVP probably caused more people to have a rash (3% in the EFV group and 6% in the NVP group; moderate quality evidence), caused more people to have reduced white blood cells (2% in the EFV group and 5% in the NVP group; high quality evidence), and signs of liver damage (6% in the EFV group and 11% in the NVP group; high quality evidence). There was probably little or no difference in increases in liver enzymes and levels of cholesterol (moderate quality evidence). There may be little or no difference in digestive side-effects, fever, enzymes from the liver and pancreas, and fat in the blood (low quality evidence).

Conclusion

EFV and NVP are similarly effective in viral suppression, preventing HIV progression and reducing mortality. EFV is more likely to affect mental function, while NVP is more likely to cause signs of liver damage, reduced white blood cells and rash.

Citation: Mbuagbaw L, Mursleen S, Irlam JH, Spaulding AB, Rutherford GW, Siegfried N. Efavirenz or nevirapine in three-drug combination therapy with two nucleoside or nucleotide-reverse transcriptase inhibitors for initial treatment of HIV infection in antiretroviral-naïve individuals. Cochrane Database of Systematic Reviews 2016, Issue 12. Art. No.: CD004246. DOI:10.1002/14651858.CD004246.pub4. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004246.pub4/epdf

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