Community consensus statement on the use of antiretroviral therapy as prevention for people living with HIV

Introduction

A. This is a community consensus statement on the use and prescription of antiretroviral therapy (ART) to people living with HIV to reduce their risk of transmitting HIV.

B. This statement does not cover the provision of antiretroviral drugs to people who are HIV negative in order to reduce their risk of acquiring HIV (pre-exposure prophylaxis, PrEP). However a number of its points also apply to PrEP.

C. This statement is issued with an underlying principle in mind: **the safeguarding of patient choice and well-being**, whether they choose to take ART or not to take it.

1. ART has drastically reduced the toll of death and sickness due to HIV infection. In addition there is now conclusive evidence[123] that effective ART very considerably reduces an individual's risk of transmitting HIV through vaginal sex, and expert consensus and some evidence that this applies to anal sex and needle sharing too.[45]
2. Availability and adherence are preconditions for the use of ART as treatment or as prevention. People need to be able to access a consistent supply of ART and to take it consistently enough to maintain viral suppression.

Issues

3. Using ART as prevention presents opportunities to individuals living with HIV but also challenges.
    a. On the one hand aside from its public health benefit, ART has the potential to relieve the burden of guilt, anxiety and fear of criminal liability many people with HIV feel at the prospect of transmitting HIV. It may also relieve the infection anxiety of HIV negative partners.
    b. On the other hand concerns have been raised by some community activists that using universal ART as a public health measure might lead to people with HIV being pressured into taking ART, regardless of clinical need.
4. ART as prevention also presents opportunities and challenges for the supply of ART and to healthcare systems.
    a. On the one hand, access to ART for treatment is still restricted globally, including in eastern and south-eastern Europe.[6] The cost of ART must fall further, especially in middle-income countries, if it is to be provided to all who fall within the 2013 WHO guidelines and those who need it for prevention.[7] Even some high-income countries lack mechanisms for funding the prescription of ART to people who do not meet guideline criteria for treatment.
    b. On the other hand, in addition to its direct prevention and clinical benefits, the prescription of ART is also associated with much higher rates of retention in care[8] and a much higher rate of viral suppression in those who are retained in care.[9] Its wider provision may therefore be highly cost-effective.

5. ART as prevention also poses opportunities to change cultural norms that may perpetuate HIV transmission - but may also be seen as challenging ones that help prevent it.
    a. In many countries the vulnerable populations that need ART most have the worst access to HIV prevention and testing services and to ART,[10] in part due to criminalisation[11] and stigma,[12] and the prevention benefits of ART cannot be realised while these are not addressed.
    b. Equally, there remains widespread concern and some evidence that the prevention benefits of ART are not always translating into reduced HIV incidence. This is ascribed to increases in risk behaviour[13] and to transmission within high-prevalence networks with high HIV prevalence.[14] In addition, antiretrovirals do not prevent other sexually transmitted infections (STIs).
6. For people with HIV, then, advocacy for the provision of ART as prevention has to include and to balance:
    a. advocacy for the provision of ART to patients who wish to take it to reduce their risk of transmitting HIV, even if they fall outside treatment criteria;
    b. safeguarding the rights of patients who have no clinical need for ART or are not yet ready to take it, and do not wish to take it for prevention reasons;
    c. continued advocacy for the right of access to treatment for all people with HIV;
    d. advocacy and the provision of information on the positive impact and cost-effectiveness of ART as prevention, in order educate funders and health providers of its benefits;
    e. campaigning for equal rights to testing, prevention services and ART for stigmatised and criminalised minorities;
    f. The provision of ART not in isolation but as part of a programme of HIV prevention resources, information and support.

Condoms and sexually transmitted infections

7. Condoms: We strongly support the continued supply, subsidy and promotion of male and female condoms as a method of proven efficacy in preventing HIV. We emphasise that, unlike ART, they also prevent many other STIs.
8. There is now, however, considerable evidence that even in high risk populations, 100% condom use is a behaviour only minority of people are able to sustain, especially in the long run.[15][16][17][18][19] This statement therefore strongly supports the provision of ART as prevention and other methods to provide the protection against transmitting or acquiring HIV that condoms cannot provide by themselves.

Resources, patient rights and patient awareness

9. It is important to ensure that providing ART for prevention will not in any way affect efforts to make ART available as treatment to anyone who needs it for clinical benefit. Prevention and treatment need not be in competition for resources[20] and should not, as a matter of principle, be set in opposition to each other. Publicising the benefits of ART as prevention can instead be used to strengthen the case for its wider provision as treatment.
10. In the case of people who do not want ART as prevention, however, there need to be safeguards against healthcare providers using coercion, pressure, future denial of ART or legal threat to persuade them to take ART.[21] It is important to remember that ART taken for prevention purposes is still a treatment, has potential side effects, and once started will probably need to be taken lifelong.

11. Healthcare providers should also be alert to the possibility of coercion by partners and to establish that the HIV positive partner really does wish to take ART of her/his own free choice.
12. Whether there is a clinical need or not for ART, patient readiness to take it is crucial in order to support the high levels of adherence necessary to suppress HIV. We welcome and recommend the adoption of the patient readiness paradigm, as outlined in the EACS treatment guidelines,[22] as a model to follow.
13. We recommend that in the case of patients with high CD4 counts, readiness to take ART is explored well in advance of patients reaching CD4 criteria for treatment. If patients express readiness, ART should not be deferred until CD4 criteria are reached.
14. Many people with HIV remain unaware of the prevention benefits of ART or are uncertain of the evidence for it, and we also welcome and recommend the adoption by other guidelines of the BHIVA and EAGA statement in the UK[23] that healthcare providers must inform all patients of the potential prevention benefits of ART, and must prescribe it if, on the basis of that information, the patient asks for it.
    a. To this end, we recommend the provision of patient materials suitable for different ages, knowledge levels and ethnicities explaining the prevention benefits of ART in easily understandable terms.
15. The prevention benefits of ART are even less well known among people who are HIV negative but vulnerable to HIV.[24] These people need accurate and clear information on the effect of ART in partners and potential partners with HIV, in order to help them make informed choices and take the best steps to reduce their risk of HIV.
16. Most models predict that ART by itself will not end the HIV epidemic but will have to be used in combination with other methods. [25] Expanding access to ARTs as prevention should not be a reason to restrict access to other methods of proven efficacy, including condoms. It should also not lead to decreased investment in research of new prevention methods.

Research priorities

17. There remain many areas of uncertainty and lack of evidence that make the choice of whether to take ART as prevention and/or rely on it as a prevention measure difficult. These include:
    a. The evidence for the efficacy of ART as prevention comes from studies in heterosexual discordant couples and mothers and babies.[26] There is an urgent need for more research into the use of ART to reduce transmission via:
        i. Anal sex: in this case there is a small amount of evidence[27] suggesting a considerable reduction in risk with the use of ART, but large observational studies in gay men and heterosexuals who have anal sex is urgently needed and those underway are welcome. [2829]
        ii. Needle and drug equipment sharing: in this case there is population-level evidence that ART provision may have reduced incidence in injecting drug users (IDUs),[30] but we again need an observational study of IDUs to assess the reduction in risk offered by ART.
        iii. Network effects: the degree of connectivity between people in large open networks may make as much difference to HIV incidence within that community as transmission frequency per act.[31323334] More research, especially, needs to be done whether ART can break transmission chains in networks of gay men and injecting drug users.

b. STIs and infectiousness: While there is clear evidence[35] that most STIs significantly increase the risk of both transmission of and infection with HIV on people not taking ART or their partners, there is relatively poor evidence on whether the same increase in risk applies to people taking fully-suppressive ART.[36]

c. Clinical risk/benefit of ART in people with high CD4 counts: There is disputed evidence as to whether ART offers any clinical benefit, over the risk of side effects, to people with CD4 counts over 500 cells/mm^3 or even 350 cells/mm^3.[37] We welcome the Start Study,[38] which is designed to answer this question for CD4 counts over 350cells/mm^3. We may need further studies to establish the risk/benefit ratio at higher CD4 counts, though risk and benefit may be too finely balanced to reach a final answer.

d. Risk compensation. As the BHIVA/EAGA statement in the UK notes, ART is at least as efficacious as 100% attempted condom use in reducing HIV transmission [3940] but, as in section 7b above, its effects may be negated by increases in risk behaviour.[4142] We therefore need:

   i. Implementation research in different populations to monitor possible changes in behaviour and risk consequent to the more widespread use of ART as prevention;

   ii. More research to assess the efficacy of comprehensive 'combination-prevention' programmes not based solely on condoms or ART alone[4344] and carried out in varied populations.

Conclusions

18. The evidence gaps cited in section 19 above are a reason to call for more research, not to refuse ART. For instance, a gay man requesting ART as prevention should not be denied it on the basis of the relative lack of evidence for its effectiveness among gay men.

19. The advent of ART as prevention faces both providers and recipients of HIV prevention methods and support with a considerable paradigm shift in what HIV prevention actually involves, who should provide it and what methods should receive priority. Training, consultation and information is needed to help HIV prevention workers, advocates and recipients respond optimally to what is likely to be a new era in the prevention of HIV.

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