Prevention: the challenge continues

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Happy New Year and welcome to the spring issue for 2016. We have some varied and interesting articles in our first issue of the year, looking in particular at prevention of infection and also at the relevance of female gender on the risk of HIV acquisition and onward transmission. We also commence a new series of short articles aimed at guiding those of you who would like to present a piece of research, audit findings or a practice development initiative, either at conference or through publication. We start, in this issue, with instructions on abstract preparation and poster preparation (for conference). We hope that you will find the series useful, and as always we welcome your feedback and any suggestions for continuing the series.

The last five years has seen the HIV prevention 'toolbox' growing very significantly. Based on scientific and technological advances, new guidelines and recommendations have expanded the number of options for prevention available to us. Options include male circumcision, sero-sorting, post-exposure and pre-exposure prophylaxis, and microbicides. In addition, the changing rationale for starting treatment early, driven by evidence supporting treatment as prevention (TasP), has also resulted in new recommendations, advising treating all who are diagnosed with HIV, irrespective of CD4 cell count, with the additional benefit of reducing onward transmission. Rebekah Webb's informative article provides us with the 'big picture': an encouraging overview of these and other prevention strategies which have developed in the last decade.

As a result of all these new initiatives perhaps there may be a temptation to put aside traditional prevention strategies and no longer actively seek new ones? However, a number of the articles in this issue give evidence of the complex nature of HIV transmission and provide reason to believe that treatment alone will not lower HIV incidence in all populations.

David Stuart and Leigh Chislett's article reminds us of just this; of the ever-changing and challenging nature of the HIV epidemic. They write of the 'ironic incongruity' that despite their London-based MSM patient population being largely well educated, well served and targeted with 'robust health promotion campaigns', the numbers of new infections continue to rise year on year. The authors also highlight another concern, i.e. that the once-simple message to use condoms is in danger of being 'confused' and complicated by the abundance of information and other prevention options available.

Their approach at London's Dean Street is one that will appeal to us as nurses. It is a whole-person, holistic approach that requires us as healthcare professionals to develop an in-depth understanding of the role that sex can play in peoples' lives, on both an emotional and physical level, and also an understanding of how people communicate their sexual needs. The philosophy of care behind the 'Sexual Wellbeing Centre' that the authors describe is a great example of innovative practice that is truly patient-centred.

Gender inequalities are clearly critical in influencing HIV transmission (UNAIDS 2012) [1]. Since the start of the global HIV epidemic, in many regions, women have remained at a much higher risk of HIV infection than men. Young women, and adolescent girls in particular, account for a disproportionate number of new HIV infections. Moreover, HIV remains the leading cause of death among women of reproductive age, yet access to HIV testing and treatment remains low [2].

The lives and experiences of women with HIV are complex, with the economic, social and physical power imbalance between men and women contributing to numerous stigmatising and influential risk factors. Pauline Jelliman's article elaborates on the links between women, HIV and the risk of experiencing violence. Pauline's article highlights a daunting area for many of us and raises our awareness of the need for all healthcare professionals to seek to enhance knowledge, skills and sensitivity in this ubiquitous yet often concealed area.

Helpfully, Angelina Namiba reviews and recommends the *ABC of Domestic and Sexual Violence*. This is evidently a valuable resource; a guide which will raise our awareness of the extent of this problem and gives practical advice, highly relevant to all who are working in clinical practice.

Drawing these two themes together, in terms of prevention-of-infection options for women in particular, we can see some encouraging progress. Condom use can often be outside the locus of female control, sometimes viewed as the antithesis to constructs of trust and love. Insisting on safer-sex practices may have repercussions ranging from stigma to fear of violence or abandonment. These issues severely limit women's ability to insist on condom use with their partners. Society often frowns on women who are sexually assertive and this can result in the inability of women to negotiate safer sex practices. As female-initiated methods, microbicides are arguably positioned as one option that could reduce women's vulnerability to HIV infection, by empowering women to control their use.

In 2010, the CAPRISA trial [3] reported that tenofovir vaginal gel significantly reduced both HIV and HSV-2 infection risk in South African women. The follow-on

study (FACTS 001) also suggested that this microbicide gel has efficacy in women who are able to use it for most sex acts. However, barriers to adherence posed by the participants' lifestyles were identified and researchers at that point concluded that its use was somewhat limited. The CAPRISA 008 study [4] is currently looking at the efficacy of the gel when delivered through a more robust family planning service delivery framework.

Another HIV prevention method which is under the control of women, used before rather than during sex, and which can be concealed, is the vaginal ring. The long awaited results from two studies were presented at CROI in February and were, on the whole, encouraging.

The findings showed that the dapivirine impregnated ring has the potential to prevent new HIV infections. The rings were effective in older women (over the age of 25 years),with almost two-thirds of infections prevented [5]. However, disappointingly, the trials both revealed low levels of adherence in those most vulnerable to infection, i.e. young women. Low levels of protection for adolescent girls and young women were reported with lack of clarity on the influencing factors. More research is needed in order to ascertain if biological differences and/or other factors are playing a role in the low levels of protection seen in this younger age group.

A number of observational studies have examined whether or not the choice and use of hormonal methods affects the risk of HIV acquisition. Some of these studies suggest that methods such as depot injections might increase a woman's risk of acquiring HIV; however, other studies show no association [6]. The ECHO study [7] is intended to explore contraceptive options for women and HIV transmission outcomes. It is aiming to recruit about 7,800 women in four African countries and will compare three reversible methods of contraception and evaluate whether there is an increased risk of acquiring HIV infection when using any of these methods of contraception. Again this will provide some invaluable information for women of child-bearing age.

From limited prevention options in the 1990s to today's overriding message of 'get tested'.

In 2014 UNAIDS released its '90-90-90' target [8]. Clearly, this target is treatment-focused, with prevention outcomes. However, rightly, there is also a demand from a number of international organisations for similarly ambitious targets for non-ART-related prevention strategies which include addressing stigma, discrimination and criminalisation. Even with a wealth of prevention options for individuals we cannot succeed in preventing HIV without reducing these highly influential factors and other disparities that impact on health. The real challenge for 2016 will be to translate recent scientific advances into practice. It will be vital that the conditions in which people live, learn, work and even worship facilitate the ability to lead healthy lives, rather than present obstacles.

These issues need to be tackled continuously and indefinitely at all levels, by us as nurses in our daily work with individuals, but also at a strategic, macro level. Nathaniel Brito-Ault's report provides us with an update on the progress of the innovative and influential Halve It campaign. At a strategic level this national campaign includes a number of initiatives aimed at policy-makers and specifically at government, calling upon it to make HIV a public health priority both locally and nationally.

I feel that Mitchell Warren, Executive Director of AVAC (an advocacy organisation which aims to accelerate the ethical development and global delivery of HIV prevention tools through global collaboration), sums up, honestly, where we are today. He states that 'for all of the excitement around prevention, around treatment, it really becomes a resource question … furthermore, there is no medical response that can address people's perceptions of others. Unless that problem is solved, no vaccine or antiretroviral will be effective in the long term' [9].

References

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