HIV and AIDS: An overview of the current issues, treatment and prevention

Elizabeth Anne Crock
HIV clinical nurse consultant and HIV programme coordinator, Homeless Person’s Programme, Bolton Clarke, West Melbourne, Victoria, Australia

Abstract
The theme of World AIDS Day 2017 is ‘let’s end it’. After almost 40 years since the first occurrences of human immunodeficiency virus (HIV), it is possible to envision an end to the HIV epidemic, one of the most serious health and development challenges humanity has faced. This article provides an overview of the current approaches to the treatment, care and support of people living with HIV and acquired immune deficiency syndrome (AIDS). It also discusses the challenges associated with HIV and AIDS that remain, HIV prevention strategies, and the nurse’s role in caring for people living with HIV. It outlines the Australian partnership approach to HIV, which provides a background for reflection on the response to HIV and AIDS in the UK and worldwide.

Keywords
AIDS, acquired immune deficiency syndrome, HIV, HIV diagnosis, HIV testing, human immunodeficiency virus, long-term conditions, World AIDS Day

Aims and intended learning outcomes
The aim of this article is to provide information about current issues in relation to human immunodeficiency virus (HIV) infection and acquired immune deficiency syndrome (AIDS), including developments in the care, treatment and support of people living with HIV and AIDS, as well as those at risk of HIV infection. After reading the article and completing the time out activities you should be able to:

» Understand the history of the worldwide HIV epidemic, including the effects of stigma and discrimination.
» Outline the principles of the partnership approach in response to the HIV epidemic in Australia.
» Explain HIV testing and diagnosis and its importance in preventing onward HIV transmission.
» Describe treatment options for people living with HIV, in particular antiretroviral therapy (ART), as well as HIV prevention strategies, such as treatment as prevention.
» Identify key affected populations for HIV and understand the importance of integrating the principles of cultural safety in their care.

Relevance to The Code
Nurses are encouraged to apply the four themes of The Code: Professional Standards of Practice and Behaviour for Nurses and Midwives to their professional practice (Nursing and Midwifery Council (NMC) 2015). The themes are: Prioritise people, Practise effectively, Preserve safety, and Promote professionalism and trust. This article relates to The Code in the following ways:

» It enables nurses to practise effectively by improving their understanding of the current treatment, care and prevention strategies for HIV, as well as the role of nurses in caring for people living with HIV and AIDS.

Conflict of interest
None declared

Peer review
This article has been subject to external double-blind peer review and checked for plagiarism using automated software
The Code states that nurses should act in partnership with those receiving care, assisting them to access relevant information and support when required. This article emphasises the importance of accessible and appropriate healthcare services to enable immediate HIV treatment and improve patient outcomes.

Nurses must focus on promoting well-being and preventing ill health, as part of the theme of prioritising people. This article improves nurses’ understanding of the use of ART and strategies such as treatment as prevention in optimising the health and well-being of people affected by HIV and AIDS, as well as those at risk of HIV infection.

The Code requires nurses to act with honesty and integrity at all times, treating people fairly and without discrimination, bullying or harassment. This article explores the history of stigma and discrimination associated with HIV and AIDS, which relates to this important aspect of The Code.

Introduction
HIV is a retrovirus belonging to the lentivirus genus (Turville and Oelrichs 2016), which are retroviruses with a long incubation period. HIV is a transmissible infection; it can be spread by body fluids during sexual activity, through direct entry into the bloodstream, and from mother to baby during pregnancy, during birth or when breastfeeding (World Health Organization (WHO) 2016). If untreated, HIV can lead to damage to the immune system, specifically the loss of CD4 cells (T-helper cells). The CD4 count provides useful information about a person’s immune function, and is usually 500-1400 cells/µL in adults with a healthy immune system (The Royal College of Pathologists of Australasia 2017). HIV-related immune deficiency is indicated by a CD4 count below 500 cells/µL, and if it falls below 200 cells/µL can lead to opportunistic infections, cancers and other conditions, collectively known as AIDS (Kelly and Varma 2016).

Without treatment, AIDS is usually fatal, although some people with HIV never develop AIDS (Okulicz et al 2009). With treatment, people living with HIV can expect to remain well and life expectancy has increased significantly over the past 40 years (McMahon and Vujovic 2016).

History of the HIV epidemic
In 1981, clusters of previously rare conditions were reported among groups of gay men in Los Angeles and New York (Morbidity and Mortality Weekly Report 1981a, 1981b). These men became unwell and most of them died shortly after. A viral cause was suspected, and the immune deficiency syndrome became known as AIDS. The virus was identified in 1983 (Barré-Sinoussi et al 1983), and in 1985 a test was developed that could detect antibodies to the virus, and it was named HIV (Turville and Oelrichs 2016). HIV continued to spread and became a global epidemic.

Stigma and discrimination against people living with HIV and AIDS was widespread (Herek and Capitanio 1993, Herek et al 1996) and was directed at gay men and other men who have sex with men (MSM), women with HIV, who were often presumed to be sex workers or sexually promiscuous, and people who inject drugs. It has been noted that HIV-related stigma fuels the epidemic, since those affected or at risk often avoid being tested or accessing healthcare services, fearing discrimination (Joint United Nations Programme on HIV/AIDS (UNAIDS) 2017a). In the face of political inaction, stigma and discrimination, HIV activists from affected communities mobilised to provide care, support and education about HIV prevention (de Cock et al 2011). Aiming to influence the research agenda, improve access to HIV treatments and lower their cost, and to protect the rights of people living with HIV, these activists forged an unprecedented public health response to the HIV epidemic (Mann and Tarantola 1998, de Cock et al 2011). The global response to HIV has subsequently asserted that human rights protection is fundamental to HIV care and prevention, and to public health overall (Heywood and Altman 2000).
Nurses have had an essential role in responding to the HIV epidemic from the outset, organising hospital and community-based care worldwide (Lewis 2006, Yox and Farley 2012). When there was no treatment for the condition, nurses formed groups and organisations to provide information and education to each other and ensure that care was provided for people with HIV (Yox and Farley 2012, Austin 2014). Now, in light of treatment advances, nurses are integral to innovative treatment and care programmes, clinical trials, research, education and HIV prevention initiatives (Austin 2014).

**Epidemiology**

About 36.7 million people globally were living with HIV in 2016, and an estimated 35 million people have died from AIDS-related illnesses since the beginning of the epidemic (UNAIDS 2017b). In 2016, there were 1.8 million new HIV infections, and one million deaths from AIDS – a decline of 48% since the peak number of deaths in 2005 (UNAIDS 2017b). Southern and eastern Africa have the highest HIV disease burden, with more than 19 million people living with HIV in these regions (UNAIDS 2017b).

Mortality from HIV is declining because of the wider availability of effective treatments. However, HIV is still a leading cause of death and is the highest cause of death in women of reproductive age globally (UNAIDS 2017b, 2017c). Women represent 52% of adults living with HIV, and women and girls remain particularly vulnerable to contracting HIV as a result of gender inequality, sexual violence and increased biological susceptibility (UNAIDS 2017c).

Globally, heterosexual sex is the most common means of HIV transmission among people of reproductive age, while in some regions, sex workers, MSM, transgender people, prisoners, and people who inject drugs are most affected by HIV (UNAIDS 2017c).

**Advances in HIV treatments and enduring concerns**

Current treatments for HIV are highly efficacious, while research on finding a cure or vaccine is advancing (Lewin and Rouzioux 2011, Rasmussen et al 2017). In many regions, people who are newly-diagnosed with HIV can commence treatment immediately and remain well, with a life expectancy comparable to people without HIV (van Sighem et al 2010, Nakagawa et al 2013). Couples with HIV can have HIV-negative children, through the use of effective HIV treatment and appropriate conception methods. Where treatment is available and accessible, HIV is now often considered a long-term condition, rather than an inevitably fatal disease. Moreover, evidence shows that effective treatment of people living with HIV prevents further transmission (Cohen et al 2011).

Nevertheless, not all people with HIV can access testing, treatments and healthcare services. An estimated one third of people living with HIV globally do not know they have HIV (UNAIDS 2017c), indicating significant barriers and inadequate access to HIV testing (UNAIDS 2017a). It is estimated that 53% of adults and 43% of children who require treatment for HIV currently receive it (UNAIDS 2017b).

Stigma and fear of discrimination continue to lead to a reluctance among some people to be tested, to engage in healthcare and to adhere to treatments (WHO 2016, UNAIDS 2017a). Studies have found that MSM and transgender women who fear stigma are less likely to have an HIV test (Golub and Gamarel 2013, Ti et al 2013). In addition, studies show that some pregnant women decline HIV testing because they fear testing positive, while others who are HIV-positive avoid antenatal care because they fear HIV-related stigma (Duff et al 2010, Duff et al 2013).
Furthermore, in some cases, healthcare services deny access to care to people with HIV or marginalised groups, such as those who inject drugs and sex workers (Savage et al 2009, King et al 2013, DeBeck et al 2017).

Many long-term survivors living with HIV are affected by multimorbidities and early ageing, especially in countries where treatments have been continuously accessible (Hermann and Skinner 2016). Palliative care remains necessary for people with HIV and AIDS (Souza et al 2016), but is not available in many countries (Herce et al 2014). These challenges mean that nurses will continue to be central to the care of people living with HIV in the future.

Partnership approach in response to the HIV epidemic

In Australia in the mid-1980s, the involvement of gay men, sex workers and drug user representatives in addressing the HIV epidemic – combined with a bipartisan government response – developed into what became known as the ‘partnership approach’. Australia’s response to the emerging HIV epidemic at the time was forged by partnerships between Australian national and political leaders, HIV and AIDS community groups and organisations, and HIV clinicians and researchers, including nurses. The partnership approach provided a robust framework for developing policy and practice encompassing HIV prevention, education, treatment, care and research (Box 1) (Altman 1992, Bowtell 2005).

Successive national HIV strategies have maintained this partnership approach (Australian Government Department of Health 2014), and this approach has been recognised internationally as central to an effective response to the HIV epidemic (UNAIDS 2015).

HIV testing and diagnosis

HIV testing should be accessible, voluntary, undertaken with informed consent, and the results should only be shared with the consent of the person tested, with rare exceptions (Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) 2017). Informed consent means that the person being tested understands the procedure, the reasons or indications for testing and is able to consider the personal and social implications of testing (ASHM 2017). The WHO (2015a) advises that all HIV testing services must adhere to the WHO ‘5Cs’: consent, confidentiality, counselling, correct results and connection.

There are different types of HIV tests – laboratory testing, point-of-care testing and self-testing (ASHM 2017). Rapid tests, such as those undertaken at point-of-care, should be followed up by laboratory tests for confirmation if they are reactive (if the test is ‘positive’ for HIV) (ASHM 2017). Each test has a defined ‘window period’, which is the time where a test may remain negative, despite a person having contracted HIV. This time can vary according to how long it takes for that individual to develop antibodies (usually 4-6 weeks), and the test’s sensitivity (San Francisco AIDS Foundation 2017). The window period for a standard laboratory HIV test is now less than two weeks. Rapid tests can have longer window periods (ASHM 2017).

**BOX 1. Central policies of the Australian partnership approach to address the human immunodeficiency virus (HIV) epidemic**

» Timely, peer-based direct and explicit preventive education campaigns directed at those most at risk of HIV, as well as the public
» Harm minimisation – the introduction of government-funded needle and syringe programmes and a rapid expansion of opioid substitution therapies
» Free, anonymous and universal testing
» Funded medicines, once these became available
» Widespread advocacy of safer sex practices and provision of condoms
» Development of an ‘enabling political environment’ that encourages affected communities, often socially marginalised groups, to be central to the national response to HIV
» Removal of legislative and political barriers to enable preventive education, for example legalisation to prevent discrimination on the grounds of HIV status
» Development of strong scientific and social research capacity

(Bowtell 2005)
HIV testing is free in the UK and can be undertaken in genitourinary or sexual health clinics, GP surgeries, charities such as the Terrence Higgins Trust and privately (British HIV Association (BHIVA) et al 2008). Self-tests are licensed for use in the UK if they carry a CE mark to show they meet European performance and safety requirements (Pebody 2015), and self-sampling tests can be obtained via www.freetesting.hiv. In blood donation screening, and for infants born of HIV-positive mothers, tests are conducted that detect proviral DNA – part of HIV itself rather than the antibody (ASHM 2017).

If a person tests positive for HIV, they should receive counselling, education and support. Partner notification and contact tracing (the identification and diagnosis of people who may have been at risk of transmission from a person with HIV) are important to ensure treatment and follow up of partners and to prevent onward transmission (Tomnay 2017). The BHIVA (2013) Standards of Care for People Living with HIV emphasise that people should have ‘access to practitioners with skills in partner notification without delay following a diagnosis of HIV’.

HIV transmission and standard infection control precautions

HIV is present in the body fluids of people who have HIV infection: semen, blood, vaginal fluids and breast milk. Saliva, urine and other body fluids, such as faeces, do not present a risk of transmission unless they are contaminated with blood (WHO 2017). HIV can be transmitted through (WHO 2017):

» Sexual contact – anal or vaginal intercourse without using barrier protection, such as condoms, with a person who has HIV. Oral sex without using condoms or dental dams is considered little to no risk, although risk is increased in the presence of bleeding gums, other contact with blood and the presence of other sexually transmissible infections (Centers for Disease Control and Prevention 2016).

» Sharing contaminated injecting equipment, especially needles and syringes.

» Occupational injury, such as needlestick injury or injury with a surgical or dental device.

» During pregnancy, during birth or via breastfeeding from an HIV-positive mother to her baby.

» Contaminated blood or blood product transfusions, and contaminated organ or tissue transplants, where screening for blood-borne viruses is inadequate or unavailable.

There is no need for additional infection control precautions in the care of people living with HIV. Despite this, people living with HIV accessing healthcare services often report that healthcare staff take excessive and unnecessary infection control precautions in their care (Nyblade et al 2009, ASHM and National Centre in HIV Social Research 2012, Pudpong et al 2014).

In one study, many nurses stated that they would use additional precautions if caring for people living with HIV, such as wearing double gloves, wearing gloves during all aspects of the person’s care including history taking and physical examination, and advising pregnant nurses not to visit people living with HIV (Crock et al 2014). This demonstrates the continuing need for HIV education for nurses on standard infection control precautions and HIV prevention.

TIME OUT 2
Review and update yourself on the principles of standard infection control, using both local and national guidelines, such as the Royal College of Nursing (2012) Essential Practice for Infection Prevention and Control: Guidance for Nursing Staff (my.rcn.org.uk/__data/assets/pdf_file/0008/427832/004166.pdf). How would you apply these principles in the care of people living with HIV?

Antiretroviral therapy

Azidothymidine, a form of antiretroviral therapy (ART), was the first drug used to treat HIV (Carr 1992), and it had limited efficacy and significant toxicity (Chen et al 2007). In 1996, protease inhibitors – another form of ART – were introduced, marking a turning point in HIV treatment. Oral combination ART, with three or more medicines, has significantly improved survival rates and the health of
people living with HIV (Chen et al 2007, McMahon and Vujovic 2016). Until 2015, ART was usually delayed until the CD4 count of the person with HIV dropped to <350 cells/µL. However, the START study (INSIGHT START Study Group et al 2015) provided evidence that commencing treatment as soon as possible after HIV diagnosis extends survival and prevents illness. Guidelines now recommend that ART is offered regardless of CD4 count (BHIVA 2014a, US Department of Health and Human Services 2016, ASHM 2017, European AIDS Clinical Society 2017).

HIV cannot be cured or eradicated by ART. Therefore, the goals of ART are to (Bloch and Rodgers 2016):

- Suppress HIV viral load to a level below the limits of detection by viral load monitoring tests (achieve undetectable viral load).
- Restore and preserve immune function.
- Reduce HIV-related disease and comorbidities.
- Improve quality of life and survival.
- Prevent HIV transmission.

However, not all ART combinations are available in all countries and regions. Some regions have limited access, or access to older drugs only, with related side effects and toxicities (The Henry J Kaiser Family Foundation 2017). Adherence to ART is crucial to its success. ART is currently a lifelong course and must be taken as prescribed. Suboptimal adherence can lead to drug resistance and treatment failure (McMahon and Vujovic 2016). There are many barriers that can reduce adherence to ART, including: HIV-related stigma and reluctance to disclose HIV status; side effects; mental health or cognitive impairment; financial constraints; healthcare system factors; medication errors; and alternative health beliefs (Collins et al 2016).

Nurses are often involved in medication management in all healthcare settings and have important roles in supporting people commencing ART, counselling, education, ART administration and support in adhering to ART. Nurses should continue to participate proactively in developing policy and practice guidelines that optimise people’s engagement in HIV care.

TIME OUT 3
Think about what a person newly diagnosed with HIV might need to know about commencing their treatment. Consider how you would discuss the following issues, and perhaps practise this with a colleague:

» The benefits of commencing treatment.
» Potential risks of delaying treatment.
» Assessing their readiness to commence treatment.
» Adherence strategies.
» Ongoing monitoring.

TIME OUT 4
Find out which ART medicines and combinations are available in the UK, and whether they are all available on the NHS.

HIV targets and the treatment cascade
In 2014, UNAIDS announced three targets to end the HIV epidemic by 2030, in a campaign known as ‘90 90 90’ (UNAIDS 2014). The aim is that 90% of people living with HIV will know their HIV status, 90% of those diagnosed with HIV will receive ART, and 90% of those treated will attain viral suppression; that is, will have an undetectable viral load. If these targets are met, there will be significant progress towards ending the HIV epidemic.

The ‘90 90 90’ targets were developed from the HIV ‘treatment cascade’, which has six stages (Kay et al 2016):

- Being diagnosed with HIV.
- Being linked to HIV care.
- Commencing treatment with ART.
- Remaining engaged in care.
- Adhering to ART.
- Achieving viral suppression – having an undetectable viral load.

In every country, even those closest to meeting the 90 90 90 targets...
(UNAIDS 2014), people with HIV drop off at each stage of the treatment cascade, meaning that the benefits of treatment for themselves and for preventing onward transmission are lost. Nurses can identify people at risk of disengagement and assist people with HIV at every stage, for example by improving HIV testing rates in local communities, commencing people with HIV on ART, and providing education and support regarding adherence to ART. These are all essential steps in reducing morbidity and mortality in people living with HIV and preventing HIV transmission (Collins et al 2016).

**HIV prevention**

**Biomedical prevention**

Biomedical prevention aims to reduce the risk of HIV transmission either before a potential exposure to HIV – pre-exposure prophylaxis (PrEP) – or after a potential exposure to HIV occurs – post-exposure prophylaxis (PEP). For instance, in addition to being used to treat HIV, ART has been used as PEP to prevent HIV transmission since the early 1990s (McAllister 2016). PEP is used for occupational exposures, such as a needlestick injury or contact with contaminated blood in a healthcare setting, as well as for non-occupational exposures, for example following unprotected high-risk sexual exposure, sexual assault or needle sharing. Careful risk assessment and appropriate prescribing are important to successful PEP, and local guidelines should be followed (BHIVA 2015, Creswell et al 2015).

Biomedical prevention is central to the prevention of mother-to-child HIV transmission (UNAIDS 2016). Maternal-to-child transmission accounts for most HIV infections in children globally (UNAIDS 2016). If a woman with HIV is not treated, the risk of transmission to her child is estimated at 13-40% (ASHM 2015). Interventions include: universal antenatal screening for HIV; ART for the woman during pregnancy (treatment as prevention); providing a short course of ART to the newborn as a form of PEP; avoiding breastfeeding; and, in some cases, caesarean section (Townsend et al 2008).

There is increasing evidence of low postnatal HIV transmission rates from women on continuous ART who exclusively breastfeed. Therefore, some guidelines in high-income countries support women with HIV to breastfeed, in certain circumstances, with appropriate monitoring and support in place (BHIVA 2014b). In low-income countries, where the risk of breast milk substitutes is associated with significantly increased illness and death, guidelines recommend lifelong ART for mothers and exclusive breastfeeding for 12-24 months (WHO and United Nations Children’s Fund 2016).

Significant barriers limit the success of prevention of mother-to-child HIV transmission programmes worldwide. Women's unequal economic, cultural and social status affects their access to sexual and reproductive health services (AVERT 2017). Women often have limited access to HIV testing; therefore, many women do not know their HIV status. Other barriers include: a lack of knowledge about prevention of mother-to-child HIV transmission; HIV-related stigma; women's fear of disclosing HIV status to their family members; and discrimination from service providers relating to their views on female sexuality (UNAIDS 2017a).


PrEP studies are now evaluating topical intravaginal gels, intravaginal rings containing ART and multimodal drug delivery systems that deliver ART plus a hormonal contraceptive for women (Flash et al 2017). Rectal and vaginal microbicides are other developing options (McAllister 2016). Voluntary male circumcision can reduce transmission of HIV through heterosexual sex to men by up to 60%, and is recommended by WHO and UNAIDS (2016) in high prevalence areas, as part of a comprehensive HIV prevention package.
Treatment as prevention’ refers to HIV prevention approaches that encourage HIV testing and the uptake of ART, with the aim of reducing HIV transmission (Cameron and Godwin 2014). Treatment as prevention is based on the understanding that, since ART reduces viral load in individuals, its widespread use will also reduce HIV transmission risk at the population level (Cameron and Godwin 2014). Indeed, it has now been established that once people are effectively treated with ART, they are no longer infectious (Centers for Disease Control 2017). This means that if a person with HIV has a sustained undetectable viral load, they present no risk of sexually transmitting HIV (Centers for Disease Control 2017), prompting the campaign slogan ‘U=U – undetectable equals untransmittable’ (Simek 2017).

Treatment as prevention, in the form of early initiation of ART to people with HIV in sero-different relationships (where one partner is HIV-negative and the other is HIV-positive) has been found to reduce HIV transmission risk to the HIV-negative partner by 96% (Cohen et al 2011). Treatment as prevention also applies to healthcare staff living with HIV. UK guidelines permit healthcare staff with HIV to undertake surgical and dental work ‘if they are on effective treatment, have very low or undetectable levels of HIV in the blood, and are regularly monitored by both their treating and occupational health physician’ (Department of Health 2013).

TIME OUT 5
Discuss with a colleague the ways that HIV may be prevented in the following settings or situations:
- In healthcare settings.
- In sexual relationships.
- When people are injecting drugs.
- From mother to baby.
Consider factors that might affect how people adopt practices that can prevent transmission in each setting. What effects might laws that criminalise drug use, sex work or homosexual behaviour have on HIV transmission and prevention?

TIME OUT 6
- Are they all available in your setting?
- How can nurses contribute to each element of the toolkit? Can you identify any barriers to these interventions?
- What structural interventions might be required to implement them in your setting?

Key affected populations and cultural safety
Key affected populations are those who are particularly vulnerable to HIV for reasons such as engaging in high-risk behaviours, for example sharing injecting equipment or engaging in sex work without using barrier protection, or are marginalised in their culture and afraid of accessing HIV services (UNAIDS 2014).

If already diagnosed with HIV, some key affected populations may experience suboptimal health outcomes as a result of their socioeconomic status, gender, sexuality, ethnicity, refugee status, homelessness or geographical location, such as living in remote areas (Crock et al 2017). Key affected populations are also overrepresented in those diagnosed late with HIV and those with advanced disease, for example opportunistic infections or low CD4 counts indicating severe immunosuppression (Savage et al 2009, Gesesew et al 2017).

Key affected populations require targeted, tailored HIV education and support services to optimise their access to testing, treatment, and engagement with care (Kay et al 2016). These groups have
been marginalised in most societies, and healthcare has not been considered a ‘safe’ place for them at times of vulnerability and ill health (Rogers et al 2014, Bekker and Hosek 2015).

‘Cultural safety’ was first described by Maori nurses in New Zealand in 1989 (Williams 1999, Nursing Council of New Zealand 2011), originally referring to a healthcare environment where there is ‘no assault, challenge or denial of a person’s identity’ (Williams 1999). It is now defined as the effective nursing of a person or family from another culture, where the nurse has reflected on their own cultural identity and its effects on their professional practice (Nursing Council of New Zealand 2011).

Culturally safe healthcare is an outcome of nursing education that enables a safe, appropriate and acceptable service, as defined by those who receive it, with culture broadly defined across age, sexual orientation, gender identity, disability, ethnic origins and indigenous status (Nursing Council of New Zealand 2011, Kellett and Fitton 2017). It is essential for nurses to ensure that the principles of cultural safety continue to be integrated in the HIV care of key affected populations.

Living longer and ageing with HIV
With the increased availability of ART, the number of people living with HIV who are ageing is growing. It is thought that HIV may accelerate or accentuate the ageing process, increasing the risk of frailty and multimorbidity, even when the virus is well controlled by ART (Hermann and Skinner 2016). Chronic infection with HIV causes inflammation, which is associated with increased rates of cardiovascular and renal disease, metabolic conditions, neurocognitive disorders and cancers (Hermann and Skinner 2016).


Future developments and the nurse’s role
Globally, nurses have long been recognised as the ‘backbone’ of the response to the HIV epidemic and will remain so in the future (Raisler and Cohn 2005). Nurses are involved in the care of people living with HIV in many fields and roles, including:

» Primary healthcare and community services.

» As nurse practitioners in HIV and sexual health, including prescribing ART in many countries.

» Clinical trials.

» Managing and coordinating services for PEP and the extension of PrEP programmes (Collins and Wheeler 2016).

» Nurse-led HIV clinics (Rabkin et al 2017). Nurses are involved in all stages of the treatment cascade, supporting the prevention and detection of late HIV diagnoses through knowledge of the condition, encouraging and facilitating HIV testing, assisting with partner notification and contact tracing, supporting people with HIV in commencing and adhering to ART and keeping them engaged in HIV care. As the world seeks to end the HIV epidemic, nurses must continue to participate in HIV policy, advocacy and research, and so the development of best practice guidelines and nursing competency standards is crucial.

Conclusion
Nurses should be aware of current issues in relation to HIV and AIDS worldwide, with a focus on emerging treatments, prevention methods and successes. Many people with HIV have experienced serious harm as a result of government and healthcare responses that have been informed by stigma and prejudice against those most affected, rather than being evidence-based. In 2017, while the search for a cure for HIV continues, and targets to end the HIV epidemic may be within reach, it is timely to reflect on World AIDS Day. It is important
to remember all those who have died, and those who are living with HIV, ensuring they receive healthcare that is free from discrimination.

While there are now effective HIV treatments and a wider range of prevention strategies available, half of people living with HIV worldwide are still unable to access ART. Laws that criminalise behaviours such as drug use remain barriers to prevention, and these issues are more effectively addressed from a public health perspective. Let’s re-harness the sense of urgency that previously characterised the response to HIV, let’s recommit, focus on the protection and promotion of human rights in the quest for a public health response to the HIV epidemic, let’s make nurses’ voices heard within the global campaign for World AIDS Day, and #LetSendIt.

TIME OUT 7
Nurses are encouraged to apply the four themes of The Code (NMC 2015) to their professional practice. Consider how the treatment and care of people living with HIV and AIDS relates to The Code.

TIME OUT 8
Now that you have completed the article you might like to write a reflective account as part of your revalidation.

References


HIV and AIDS care
TEST YOUR KNOWLEDGE BY COMPLETING SELF-ASSESSMENT QUESTIONNAIRE

1. Human immunodeficiency virus (HIV):
   a) Is an inevitably fatal disease
   b) Always progresses to acquired immune deficiency syndrome (AIDS)
   c) Is often considered a long-term condition, in regions where treatment is available and accessible
   d) Is a curable condition

2. HIV-related immune deficiency is indicated by a CD4 count of:
   a) Below 350 cells/µL
   b) Below 500 cells/µL
   c) Above 500 cells/µL
   d) Above 750 cells/µL

3. Which of the following is an aspect of the Australian partnership approach in response to the HIV epidemic?
   a) Harm minimisation
   b) Free, anonymous and universal testing
   c) Widespread advocacy of safer sex practices and provision of condoms
   d) All of the above

4. What is the most common means of HIV transmission among people of reproductive age globally?
   a) Sharing contaminated injecting equipment
   b) Occupational injury
   c) Heterosexual sex
   d) Contaminated blood transfusions

5. Which of the following is not one of the World Health Organization's '5Cs' that all HIV testing services should adhere to?
   a) Contact tracing
   b) Counselling
   c) Correct test results
   d) Connection to prevention, care and treatment

6. Which form of antiretroviral therapy (ART) was the first drug used to treat HIV?
   a) Azidothymidine
   b) Protease inhibitors
   c) Two-drug combination injection
   d) Oral combination ART

7. Which statement is false?
   a) ART can be used as post-exposure prophylaxis to prevent HIV infection
   b) Couples with HIV can have HIV-negative children
   c) If a person with HIV has a sustained undetectable viral load, they remain at high risk of sexually transmitting HIV
   d) Early initiation of ART to people with HIV in serodiscordant relationships has been found to significantly reduce HIV transmission risk

8. When caring for people living with HIV, nurses should:
   a) Not take any additional infection control precautions
   b) Always wear double gloves
   c) Avoid visiting these patients if they are pregnant
   d) Wear gloves during all aspects of the person's care, including history taking and physical examination

9. Which of the following is a key affected population that is particularly vulnerable to HIV?
   a) Men who have sex with men
   b) Transgender people
   c) People who inject drugs
   d) All of the above

10. Which statement is true?
   a) The number of people living with HIV who are ageing is decreasing
   b) HIV is thought to accelerate or accentuate the ageing process
   c) HIV reduces the risk of frailty and multimorbidity when the virus is well-controlled by ART
   d) ART should never be used in the treatment of older adults with HIV

How to complete this assessment
This self-assessment questionnaire will help you to test your knowledge. It comprises ten multiple choice questions that are broadly linked to the article starting on page 51. There is one correct answer to each question.
• You can test your subject knowledge by attempting the questions before reading the article, and then go back over them to see if you would answer any differently.
• You might like to read the article before trying the questions. The correct answers will be published in Nursing Standard on 10 January 2018.

Subscribers making use of their RCNi Portfolio can complete this and other questionnaires online and save the result automatically. Alternatively, you can cut out this page and add it to your professional portfolio. Don’t forget to record the amount of time taken to complete it.

You may want to write a reflective account based on what you have learned. Visit rcni.com/reflective-account

This self-assessment questionnaire was compiled by Alex Bainbridge

The answers to this questionnaire will be published on 10 January 2018

Answers to SAQ 921 on Methods of contraception, which appeared in the 22 November issue, are:

1, a 2, d 3, c 4, c 5, d 6, c 7, d 8, b 9, b 10, c