

Learning guide

Challenges associated with ageing in women with HIV

This learning guide has been prepared in conjunction with the Women for Positive Action slide presentation and speaker notes resource concerning challenges associated with ageing in women with HIV.

The guide identifies the key learning objectives for this educational resource and suggests topics for discussion and self-learning. The modules are intended for use by both health professionals and community representatives who want to create or participate in learning opportunities relating to improving the care of women with HIV.

Learning objectives

After completing this module, participants will be able to discuss the following issues and appreciate their implications for both patients and providers of healthcare.

Women with HIV are living longer than ever before

- By 2050 it is predicted that almost a quarter of the world's population will be ≥ 60 years and as, in general, women have a longer life expectancy than men, the majority of people aged ≥ 60 years in future years will be women and this will have an impact on women with HIV
- The proportion of women with HIV has increased and women currently account for approximately half of the 33 million people living with HIV in the world today
- With advances in pharmacotherapy and healthcare strategies, HIV has shifted from an always fatal to a usually chronic disease, resulting in patients with HIV living longer. For example, by 2015, it is anticipated that over half of the people living with HIV in the US will be aged >50 years
- The rate of infections and new diagnoses among older people is also increasing

Women living with HIV face additional challenges when growing older

- Women living with HIV face all the challenges that the general population face when growing older, as well as the additional consequences of living longer with HIV, and longer exposure to HIV treatment regimens
- A longer time with HIV and receiving treatment may result in a reduction in adherence and mean that women face long-term adverse effects of HIV treatment

- While mortality from HIV-associated factors among people living with HIV has decreased, morbidity and/or mortality from non-AIDS-defining conditions has increased, including: non-AIDS-defining infections, renal disease, non-AIDS-defining cancers/malignancy, muscular and skeletal changes, cardiovascular events, non-AIDS-dementias, neurocognitive changes, mood and CNS disorders. Approximately half of people with HIV who are being treated with antiretroviral therapy now die as a result of non-AIDS defining conditions
- There is a growing need to address the challenges women face as they live longer with HIV

Women with HIV may be at an increased risk of an earlier onset of menopause compared with HIV-negative women

- Women with HIV are more likely to experience onset of menopause at an earlier age than HIV uninfected women and their symptoms may be more severe, particularly vasomotor, psychological symptoms, vaginal dryness and dyspareunia
- Earlier onset of menopause may impact the underlying risk for cardiovascular disease (CVD), dyslipidemia, diabetes and osteopenia in women with HIV
- Immunosuppression, smoking and low socioeconomic status are potential contributors to early onset of menopause in women with HIV
- Healthy lifestyle choices, smoking cessation and adherence to effective antiretroviral therapy (ART) can be recommended to enhance women's health and offset any effects that can be associated with menopause

Women with HIV may be at an increased risk for osteoporosis compared with HIV-negative women

- Currently it is estimated that over 200 million people worldwide suffer from osteoporosis, with approximately 30% of all post-menopausal women living with the condition
- Women with HIV may be at an increased risk for osteoporosis compared with HIV-negative women, with the decrease in bone mineral density (BMD) possibly due to the disease itself and/or ART
- Osteoporosis is a major risk factor for hip fractures and women with HIV may be more likely to experience falls, as a CNS side effect of ART and/or neuropathy, increasing the likelihood of a fracture
- Strategies to help reduce the risk of women with HIV developing osteoporosis can include

regular weight-bearing exercise, adequate dietary calcium intake along with vitamin D, avoidance of smoking or excess alcohol and avoidance of ARTs which may be related to a decrease in BMD. Bone density screening should also be considered in this group

- Standard medications approved for the treatment and prevention of osteoporosis may be appropriate for women with HIV

Women with HIV may be at increased risk for cardiovascular disease

- HIV infection confers its own CVD risk and ART contributes to an increase in CVD risk
- The incidence of myocardial infarction (MI) has been shown to increase with longer exposure to combination ART
- Other traditional risk factors that increase the risk of CVD include age, family history, smoking, raised blood pressure, elevated cholesterol, low physical activity, obesity and diabetes
- Smoking cessation, control of hypertension, hypercholesterolaemia and diabetes, appropriate diet and exercise regimes and standard medications approved for the treatment and prevention of CVD may help decrease the risk of CVD among women with HIV

Women with HIV are at increased risk for certain AIDS-defining cancers

- Many cancers are now treatable, especially when diagnosed early. However, late diagnosis and older age at diagnosis can lead to poorer outcomes and greater disease and treatment burden
- Among AIDS-defining cancers, women with HIV/AIDS are at an increased risk for Kaposi's sarcoma, lymphomas, and invasive cervical cancer
- Cervical cancer is one of the most common types of cancer among women worldwide and women with HIV are at a significantly higher risk
- Some viral strains of Human Papillomavirus (HPV) can cause cervical cancer in women and women living with HIV may be particularly vulnerable to infection with, and persistence of, the high risk HPV types that can lead to cancer
- HAART is associated with regression of cervical intraepithelial neoplasia (CIN), although the incidence of cervical cancer has not decreased since the introduction of HAART, highlighting the importance of regular screening and adequate HPV vaccination in girls
- HAART regimens significantly reduce the risk of all AIDS-defining cancers

Breast cancer in women with HIV presents several diagnosis and treatment challenges to clinicians

- The incidence of breast cancer appears not to be increased among individuals with HIV. However, since women with HIV are living longer, as a result of HAART and better supportive care, it is unknown whether the incidence of breast cancer will increase
- Women with HIV are less likely to undergo routine screening mammography, which may ultimately play a role in later diagnosis and more advanced disease at presentation of breast cancer
- ART is associated with an increase in breast size in women as part of a syndrome of peripheral fat wasting (lipodystrophy) and central adiposity
- Patients with HIV and breast cancer present two distinct challenges to the clinician; to confirm the diagnosis and accurately stage breast cancer, and to evaluate the safety and timing of surgery and adjuvant treatment in the immunocompromised setting
- Healthcare vigilance and screening mammography of women with HIV/AIDS for breast cancer is important to ensure early diagnosis and intervention
- Drug–drug interactions between cancer drugs and ART can be predicted and managed

Older women with HIV may be at an increased risk for acute renal failure or chronic kidney disease

- As age has been shown to be an independent predictor for renal disease, special monitoring of glomerular filtration rates should be considered in women aged ≥ 45 years, especially if using ART that may increase risk for kidney disease and/or concomitant risk factors (such as dyslipidemia, diabetes, hypertension and obesity) are present
- Renal complications can increase mortality among women with HIV
- In patients with decreased renal function, some ARTs and other drugs should be adjusted as necessary, treatments that may increase risk for kidney disease should be avoided unless there is no alternative, and special care should be taken with drug–drug interactions

Women with HIV are at increased risk of frailty

- Geriatric frailty is defined as having at least three of: unintentional weight loss, self-reported exhaustion, low physical activity, slowness and weakness. It increases with advancing age and is reported to be associated with long-term adverse health-related

outcomes – increased risk of geriatric syndromes, dependency, disability, hospitalisation, institutional placement, and mortality

- A 55-year-old patient living with HIV for 0–4 years is as frail as a 65-year-old HIV-negative patient
- Severe CD4+ cell depletion is an independent predictor of slowness, weakness, and frailty
- Other independent predictors of frailty include unemployment, greater number of co-morbid conditions and past opportunistic illnesses, depression, antidepressants and low serum albumin

Women with HIV face many emotional, psychological and psychiatric challenges as they age

- Neurocognitive changes associated with HIV are present in $\geq 50\%$ of people living with the disease and consist of cognitive, behavioural and motor dysfunctions. These effects increase with age
- The main neurocognitive changes include major depressive disorder and HIV-associated neurocognitive disorder (HAND)
- HIV has been associated with an increased incidence of early onset dementia and of Alzheimer's disease, while HIV-associated dementia also increases with age
- Neurocognitive impairment among older patients increases poor adherence with medication, while suboptimal ART adherence can make older patients vulnerable to neurocognitive dysfunction
- It is possible that treatment regimens which penetrate the CNS may have a beneficial impact on the neurocognitive changes associated with HIV and that a healthy lifestyle can help to preserve cognitive function
- Depression and anxiety are common among women with HIV – as much as four times higher versus HIV-negative women
- Depression can lead to poor ART adherence and increased mortality
- Women with HIV should be screened for depression and anxiety to ensure appropriate intervention is offered and international guidelines recommend assessing for depression prior to the start of ART
- Insomnia is more prevalent in women than men and increases with age. If untreated, sleep disturbances can make other conditions, such as depression, worse. Therefore interventions for both conditions need to be implemented to optimise outcomes

Older women with HIV may require more healthcare and emotional support than HIV-negative women

- Older women with HIV may be reassured by more regular healthcare screenings to alleviate concerns/fears around their health and these should be offered based on clinical judgment
- Additional community or healthcare support may be required as financial circumstances and support from a partner may be decreased with older women with HIV
- Feelings of stigma and isolation are still common among ageing women with HIV and the information available to women with HIV about ageing is limited with regard to what is due to the disease and what is due to the normal ageing process
- Healthcare professionals need to take the lead in understanding the challenges facing women with HIV as they age in order to better support and provide answers for this population
- Patient support groups are fundamental for ageing women with HIV for support and to share experiences

Discussion guide

Consider the following questions when completing this module – the questions can be used for both reflective self-learning purposes and as a guide to discussion as part of a group learning experience.

Prevention is better than cure

The consequences of ageing as a woman with HIV can lower quality of life and negatively impact treatment adherence and medical outcomes. It is important, therefore, that the challenges women face as they live longer with HIV are addressed.

- Which groups of women with HIV might be more likely to experience conditions associated with ageing? Is there a 'vulnerable type'?
- How can those women at highest risk be identified?
- Aside from medications, how can a woman be helped to prevent the early onset of conditions associated with ageing with HIV?
- How can a woman be supported to make healthy lifestyle choices?
- How can greater healthcare vigilance and screening of women with HIV/AIDS for cancer be encouraged and implemented?

Ensuring early and appropriate ART intervention

HIV testing is often delayed in older individuals and delayed treatment and diagnosis may have more adverse consequences in older individuals compared with younger people.

However, older patients derive a similar level of benefit from ART as younger patients.

- What are the benefits of early ART intervention on the physical and neurological consequences of ageing with HIV?
- How can more effective HIV screening in older women be encouraged?
- What factors should be considered when starting or reviewing ARTs in older women with HIV?

Support for ageing women with HIV

- How does stigma manifest itself among the ageing community and services provided to the ageing population, and how can these be overcome?
- What social support can be offered to alleviate an older woman's emotional or financial burden?
- How can women access health and social care services with HIV experience?