HIV Indicator Conditions:
Guidance for Implementing HIV Testing in Adults in Health Care Settings

Executive Summary

Of the approximately 2.3 million HIV-infected individuals living in the European region, it is estimated that one in three are unaware of their HIV status, resulting in significant levels of late diagnosis and transmission across the region. In Western Europe, 45-50% of newly diagnosed HIV-positive individuals are diagnosed and enter care late (i.e. with a CD_4 count <350 cells/μL). Late diagnosis is associated with increased HIV-related morbidity and mortality, poorer response to treatment, increased healthcare costs and increased transmission rates. Therefore, there are many benefits of diagnosing HIV at an early stage, and this is why early diagnosis should be a key public health strategy. Earlier diagnosis requires innovative approaches to improve testing among those most likely to be infected with HIV and who present late for care.

This guidance focuses on individuals who attend health care settings, including medical specialties where HIV testing may not be undertaken as part of the standard medical care for individual patients with certain medical conditions. This proposed novel approach, *indicator condition-guided HIV testing*, should be an additional element of an overall comprehensive national HIV testing strategy. The guidance has been developed by a panel with representatives from a range of European clinical specialty societies, with intellectual input from WHO Regional Office for Europe and the European Centre for Disease Prevention and Control. The intended audience of the guidance is all healthcare providers in the relevant specialties and settings as well as personnel responsible for overseeing HIV testing programmes. The guidance in part builds on the methodology developed through the HIDES study (HIV Indicator Diseases Across Europe Study), which documented indicator conditions with more than 0.1% undetected HIV prevalence. Recent studies demonstrate the feasibility and acceptability of introducing HIV indicator condition guided HIV testing as a part of routine care, but also examine challenges in its implementation, which this guidance seeks to address.

The objectives of the guidance are to:

- Encourage and support the inclusion of indicator condition-guided HIV testing in national HIV testing strategies, taking into account the local HIV prevalence, ongoing testing programmes and the local healthcare setting;
- Recommend approaches and practical tools for education and training of healthcare professionals on overcoming barriers to recommending an HIV test.

HIV indicator conditions can be divided into 3 categories:

1. Conditions which are AIDS defining among PLHIV;
2. Conditions associated with an undiagnosed HIV prevalence of >0.1%;
3. Conditions where not identifying the presence of HIV infection may have significant adverse implications for the individual's clinical management.

There is a large body of evidence from randomised controlled trials on the consequences of not treating people living with HIV who have AIDS defining conditions. Not recommending a test in these circumstances would not be considered good clinical practice. Routine testing for conditions with an HIV prevalence of ≥0.1% has been reported to be cost-effective and has the potential to increase earlier diagnosis of HIV, and thus lead to earlier opportunities for care and treatment.

Recommendations:

- Any person (not already known to be HIV positive) presenting with potentially **AIDS defining conditions** should be **strongly recommended HIV testing**.
- Any person presenting with a **condition with an undiagnosed HIV prevalence of >0.1%** should be **strongly recommended HIV testing.**
- For indicator conditions where **expert opinion considers HIV prevalence likely to be >0.1%**, but awaiting further evidence, it is recommended to **offer testing**.
- For conditions where **not identifying the presence of HIV infection may have significant adverse implications** for the individual's clinical management, **testing should be offered** to avoid further immune suppression with potentially serious adverse outcomes for the individual, and to maximize the potential response to the treatment of the indicator condition (irrespective of whether the estimated prevalence is lower than 0.1% or not).

The full guidance document is available in English at www.hiveurope.eu

Table 1: Definitions of indicator conditions and recommendations for HIV testing

1. Conditions which are AIDS defining among PLHIV*

Strongly recommend testing:

Neoplasms:
- Cervical cancer
- Non-Hodgkin lymphoma
- Kaposi's sarcoma

Bacterial infections
- Mycobacterium Tuberculosis, pulmonary or extrapulmunary
- *Mycobacterium avium* complex (MAC) or *Mycobacterium kansasii*, disseminated or extrapulmonary
- *Mycobacterium, other species or unidentified species, disseminated or extrapulmunary*
- Pneumonia, recurrent (2 or more episodes in 12 months)
- Salmonella septicaemia, recurrent

Viral infections
- Cytomegalovirus retinitis
- Cytomegalovirus, other (except liver, spleen, glands)
- Herpes simplex, ulcer(s) > I month/bronchitis/pneumonitis
- Progressive multifocal leucoencephalopathy

Parasitic infections
- Cerebral toxoplasmosis
- Cryptosporidiosis diarrhoea, > 1 month
- Isosporiasis, > 1 month
- Atypical disseminated leismaniasis
- Reactivation of American trypanosomiasis (meningoencephalitis or myocarditis)

Fungal infections
- Pneumocystis carinii pneumonia
- Candidiasis, oesophageal
- Candidiasis, bronchial/ tracheal/ lungs
- Cryptococcosis, extra-pulmonary
- Histoplasmosis, disseminated/ extra pulmonary
- Coccidiodomycosis, disseminated/ extra pulmonary
- Penicilliosis, disseminated

2a. Conditions associated with an undiagnosed HIV prevalence of ≥0.1

Strongly recommend testing:

- Sexually transmitted infections
- Malignant lymphoma
- Anal cancer/dysplasia
- Cervical dysplasia
- Herpes zoster
- Hepatitis B or C (acute or chronic)
- Unexplained lymphadenopathy
- Mononucleosis-like illness
- Community-acquired pneumonia
- Unexplained leukocytopenia/thrombocytopenia lasting >4 weeks
- Seborrheic dermatitis/exanthema
- Invasive pneumococcal disease
- Unexplained fever
- Candidaemia
- Visceral leishmaniasis
- Pregnancy (implications for the unborn child)

2b. Other conditions considered likely to have an undiagnosed HIV prevalence of >0.1%

Offer testing:

- Primary lung cancer
- Lymphocytic meningitis
- Oral hairy leukoplakia
- Severe or atypical psoriasis
- Guillain–Barré syndrome
- Mononeuritis
- Subcortical dementia
- Multiplesclerosis-like disease
- Peripheral neuropathy
- Unexplained weightloss
- Unexplained oral candidiasis
- Unexplained chronic diarrhoea
- Unexplained chronic renal impairment
- Hepatitis A
- Candidiasis

3. Conditions where not identifying the presence of HIV infection may have significant adverse implications for the individual's clinical management

Offer testing:

- Conditions requiring aggressive immuno-suppressive therapy:
  - Cancer
  - Transplantation
  - Auto-immune disease treated with immunosuppressive therapy
- Primary space occupying lesion of the brain.
- Idiopatic/Thrombotic thrombocytopenic purpura

* Based on CDC and WHO classification system