HIV in Europe guidance on indicator condition guided HIV testing in adults

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On behalf of: *HIV in Europe* Panel on Guidance on Indicator Condition-Guided HIV testing in Adults

Benefits of early HIV diagnosis

- **Benefits to the infected individual**
  - Antiretroviral therapy (ART) ➡ Reduced mortality & morbidity (near normal life expectancy[1])
- **Benefits to the public health**
  - Reduced onward transmission
    - Reduction in unsafe sexual behaviour (68%[2])
    - ART ➡ infectiousness ⬇ (96% in HPTN 052[3])
  - Reduced health care costs

1. May M et al. *BMJ* 2011; **343**: d6016.
2. Marks G et al. JAIDS 2005; **39**: 446-53.
3. Cohen MS et al. *N Engl J Med* 2011;**365**:493-505.

Problem of late diagnosis

- Across Europe ~50% cases are diagnosed late i.e. below threshold for treatment i.e. CD4 <350[1]
- More frequent in older male immigrants
- Less frequent in
  - MSM (men-who-have-sex-with-men)
  - Women

New approaches needed

1. HIV/AIDS surveillance in Europe 2010. *ECDC & WHO*.

Barriers to early diagnosis

- **Patient – *afraid to ask***
  - Unawareness of risk
  - Denial
  - Fear of stigma and discrimination
  - Difficulty accessing services (especially immigrants)

- **Physician/health care worker – *afraid to offer***
  - Lack of knowledge
  - Lack of confidence in asking about risk behaviours and offering a test
  - Fear of being perceived as discriminatory
  - Perceived as being too time-consuming or difficult

Overcoming the barriers

- Offer of HIV test acceptable to patients in many settings e.g. 83% acute medical patients[1]
- But test often not offered
  e.g. only 43% cases of TB tested[2]
- High variability between clinicians in offering test
  e.g. 45-88% among doctors[3]
- Opt-out (automatic) testing leads to increased rates
  e.g. 96% for antenatal screening in UK in 2010[4]

1. Ellis S et al. *Clinical Medicine* 2011; **11**: 541-3.
2. Thomas William S et al. *Int J STD & AIDS* 2011; **22**: 748-50.
3. Petlo T et al. *Int J STD & AIDS* 2011; **22**: 727-9.
4. National Antenatal Infections Screening Monitoring. *HPA*.

Indicator condition guided HIV testing

- Presence of specific diagnoses/clinical scenarios act as an ***automatic trigger*** for offering an HIV test
- One part of a rational strategy of HIV testing
- Complements other guidelines
  - National
  - ECDC
  - WHO

Indicator conditions

1. AIDS-defining conditions (ADC)

2. Conditions associated with increased HIV prevalence (>0.1%)

3. Conditions where failure to diagnose HIV infection may have severe consequences for person's health

1. AIDS-defining conditions (ADC)

- Opportunistic infections
  - Fungal
    - E.g. *Pneumocystis jiroveci,* cryptococcosis, histoplasmosis, candidiasis (oesophageal, tracheal, pulmonary)
  - Bacterial
    - E.g. Tuberculosis (TB), disseminated *Mycobacterium avium*, recurrent pneumonia or salmonella septicaemia
  - Parasitic
    - E.g. cerebral toxoplasmosis, cryptospridiosis, microsporidiosis
  - Viral
    - E.g. CMV retinitis, PML, persistent HSV
- Neoplasms
  - Non-Hodgkin's lymphoma, Kaposi's sarcoma, cervical carcinoma

AIDS-defining conditions

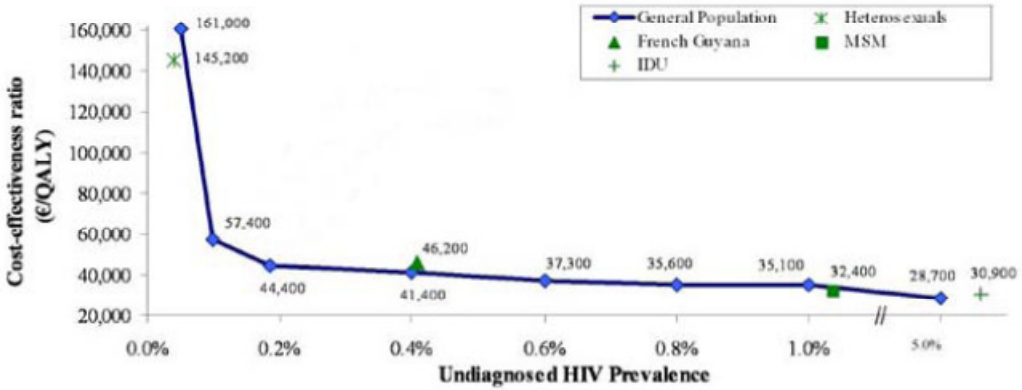
- Rationale
  - Significant probability of being HIV-infected
  - Correct management includes early initiation of ART
    - ACTG 5164 – early ART (i.e. <2 wks; median 12 days) reduced death or further ADC compared to deferred ART (median 45 days) 14 vs 24% (Odds Ratio = 0.51)[1]
    - Similarly for starting ART early in TB in HIV infection[2]
    - Failure to diagnose and treat is sub-standard care

1. Zolopa A et al. *PloS One* 2009; **4**: e5575.
2. Havlir DV et al. *N Engl J Med* 2011; **365**: 1482-91.

2. Conditions associated with increased HIV prevalence (>0.1%)

Cost-effectiveness

– HIV testing is cost-effective if undiagnosed prevalence >0.1%[1]



Yazdanpanah Y et al. *PLoS One* 2010; **5**: e13132.

- Recommended by US Centers for Disease Control[2]

1. Sanders GD et al. *N Engl J Med* 2005; **352**: 586-95.
2. Branson BM et al. *MMWR* 2001;**50**:63-85.

2a Strongly recommend testing
(HIV prevalence >0.1%)

- Sexually transmitted infections (4.06%)[1]
- Lymphoma (0.29%)[1]
- Anal cancer/dysplasia (2.90%)[1]
- Cervical/anal dysplasia (0.37%)[1]
- Herpes zoster (2.89%)[1]
- Hepatitis B or C (0.36%)[1]
- Mononucleosis-like illness (3.85%)[1]
- Unexplained leucopaenia or thrombocytopaenia, >4 weeks (3.19%)[1]
- Seborrheic dermatitis or exanthema (2.06%)[1]
- Unexplained oral candidiasis (6-23%)
- Invasive pneumococcal disease (2.4%)
- Unexplained chronic fever (3%)
- Unexplained chronic diarrhoea (10-12%)
- Pregnancy (0.17%)[2]

1. HIDES, *EACS* Belgrade 2011.
2. National Antenatal Infections Screening Monitoring. *HPA*.

b. Offer testing (HIV prevalence probably >0.1%)

- Primary lung cancer
- Lymphocytic meningitis
- Visceral leishmaniasis
- Oral hairy leucoplakia
- Severe or recalcitrant psoriasis
- Guillain-Barré syndrome
- Mononeuritis
- Peripheral neuropathy
- Subcortical dementia
- Multiple sclerosis like disease
- Unexplained weight loss
- Unexplained lymphadenopathy
- Unexplained renal failuire

Rationale

- Significant probability of being HIV-infected (>0.1%)

3. Conditions where failure to diagnose HIV infection may have severe consequences for person's health

- Prior to initiating aggressive immuno-suppressive therapy
  - Malignancy
  - Transplantation
  - Auto-immune disease
- Primary space occupying lesion of the brain

Rationale

- Severe avoidable (iatrogenic) adverse outcomes for a person's health
- Failure to diagnose HIV is sub-standard care

Indicator conditions by specialty or setting

- Respiratory medicine
  - TB
  - *Pneumocystis jiroveci*
  - Recurrent pneumonia
- Neurology
  - Cerebral toxoplasmosis
  - Guillain-Barré syndrome
  - Mononeuritis
  - Peripheral neuropathy
  - Subcortical dementia
  - Multiple sclerosis like disease

- Dermatology & venereology
  - STI
  - Kaposi's sarcoma
  - Chronic HSV
  - Herpes zoster
  - Severe or recalcitrant psoriasis
  - Seborrheic dermatitis or exanthema
- Gastroenterology & hepatology
  - Hepatitis B or C
  - Oesophageal candidiasis
  - Unexplained chronic diarrhoea

- Oncology
  - Lymphoma
  - Anal cancer
  - Kaposi's sarcoma
  - Malignancy requiring immuno-suppressive therapy
- Gynaecology and obstetrics
  - Cervical dysplasia
  - Pregnancy
  - STI

- Dentists
  - Oral candidiasis
  - Oral hairy leukoplakia
  - Oral Kaposi's sarcoma
- Infectious diseases and general internal medicine
  - TB
  - Recurrent pneumonia
  - Unexplained weight loss
  - Unexplained lymphadenopathy
  - Unexplained chronic fever
  - Etc.

- Primary care physician (general practitioner)
- Emergency department

Any indicator condition

Implementation of indicator condition (IC) guided HIV testing

- Availability of HIV test kits and laboratory support
- Education and training of staff
  - Recognising ICs
  - How to offer a test
    - Within capacity of any doctor or trained nurse
    - Written consent unnecessary
    - Providing results
- Care pathways

Implementation objectives

- Guidelines
  - European
  - National
- Postgraduate medical training programmes
  - Primary care physicians
  - Specialists

Required to achieve objectives

- Support by healthcare policy makers
- Support by medical professional bodies

At European and national levels

Implementation tools

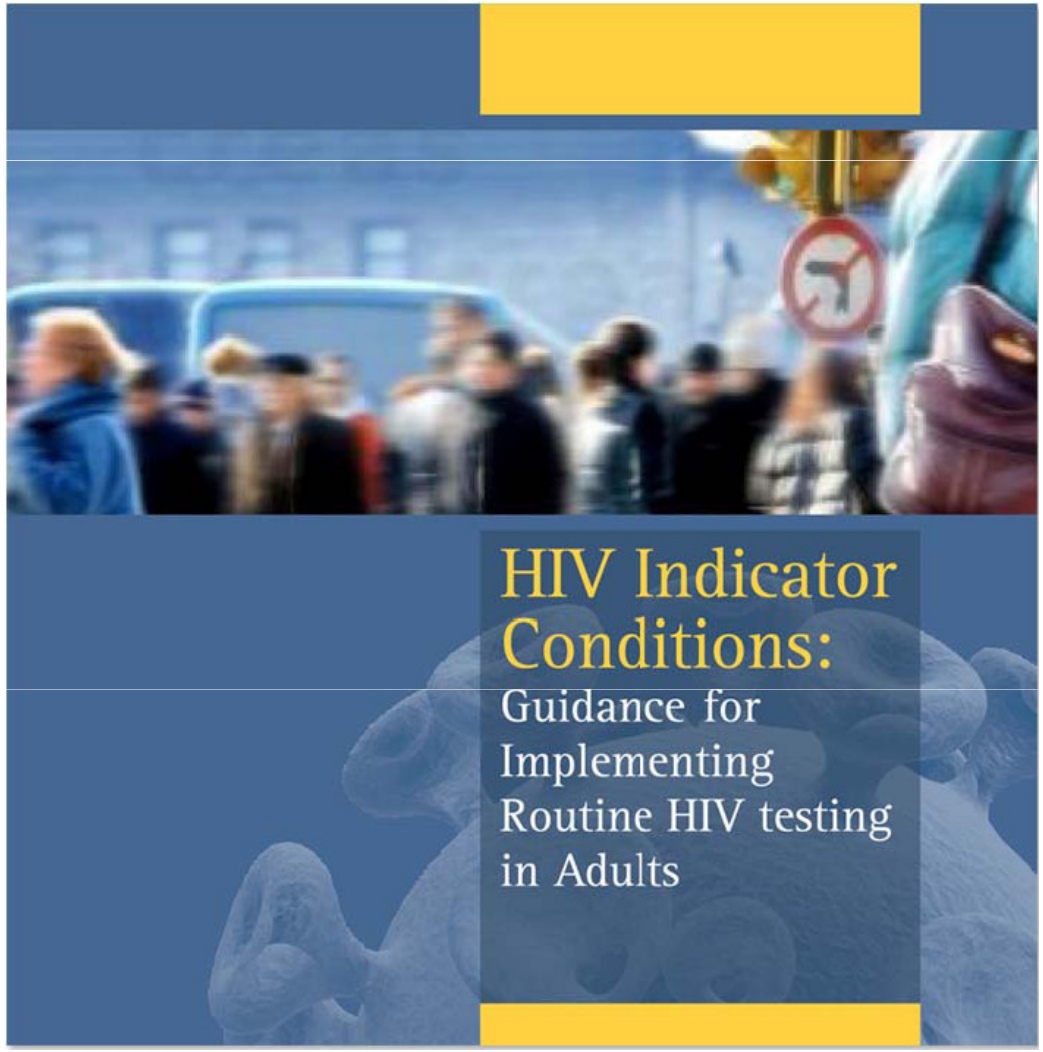
- Educational
  - Tailored to practice
  - Different languages
- Audit and reporting
  - Audit (accepted IC) - Number tested / number with IC
  - Reporting (probable IC) - Number tested positive / number with IC

Conclusion

Indicator condition guided HIV testing is an important tool for diagnosing HIV earlier.

Draft document on website (www.hiveurope.eu)

For comments by 14 April to Dorthe Raben (dra@cphiv.dk)



Panel on Guidance on Indicator Condition-Guided HIV testing in Adults

Members to the panel: ECDC, Sweden, represented by Marita van de Laar; WHO Europe, Denmark, represented by Lali Khotenashvili ; Nathan Clumeck, CHU Saint-Pierre, Brussels, Belgium ; Jose Gatell, Hospital Clínic de Barcelona, Barcelona, Spain; Brian Gazzard, Chelsea and Westminster Hospital, London, England ; Jens Lundgren, University of Copenhagen and Rigshospitalet, Copenhagen; Antonella d'Arminio Monforte, Clinica delle Malattie Infettive, Milan, Italy´; Jürgen Rockstroh, Medizinischen Universitätsklinik, Bonn, Germany; Amanda Mocroft, University College London Medical School, London, England ; Ann Sullivan, Chelsea Westminster Hospital, London, England; Valerie Delpech, HPA; Martin Fisher, Consultant in HIV/GU Medicine, Royal Sussex County Hospital, Brighton; Francesco Blasi (ERS President Elect), and Alberto Mateelli (Director of a WHO Collaborating Centre on TB/HIV), European Respiratory Society (ERS); European Society of Gynaecology and Oncology (ESGO); European Association for the Study of the Liver (EASL); Gabriele Arendt, Oberärztin, Universitätsklinikum Neurologische Klinik Düsseldorf, Germany, European Neurological Society (ENS); Keith Radcliffe, European Regional Director, International Union against Sexually Transmitted Infections (IUSTI);Deniz Gokengin, Turkish representative on the Council of IUSTI Europe; José Miro, Hospital Clinic Universitari, Barcelona and Bruno Hoen (France), European Society of Clinical Mikrobiology and Infectious Diseases (ESCMID); Erwin Tschachler, Secretary General of the EADV, European Academy of Dermatology and Venereology (EADV); Anne-Françoise Gennotte, GP, Director of the Brussels VCT Center and coordinator of the outreach HIV testing program with standard and Rapid HIV tests in collaboration with 5 primary care centers in Brussels; Mika Salminen, Head of Virology at the National Institute of Health and Welfare (THL), Helsinki, Finland.