



INDICATOR CONDITION GUIDED HIV TESTING – PROGRESS AND CHALLENGES

A Sullivan
Malta, February 2016

HIV Indicator Condition Guided Testing

Indicator conditions are conditions associated with an excess risk of being HIV-positive

Opportunistic healthcare focused strategy

Routine HIV testing is cost effective when the undiagnosed HIV prevalence in the target group $>0.1\%$

Included in a number of testing guidelines but very variable implementation



> 300 delegates from 53 countries of WHO Europe Region

To identify strategies for overcoming obstacles to optimal testing and earlier care

Indicator Condition guided testing

Recommended actions:

Produce evidence on prevalence and missed opportunities for testing

Completion of Indicator Disease Guidance

NOV
2007





SEP 2009 –
FEB 2011

HIV Indicator Diseases Across Europe Study – Phase 1

Pilot study (2009-2011)

Routine test offer to all 18-65 year olds of unknown HIV status presenting for care of an Indicator Condition

17 sites in 14 European countries

Results

HIV tests

3588 patients

66 new HIV diagnoses

HIV prevalence 1.8%

95% CI 1.4 - 2.3

Potential missed opportunities in preceding 5 years

20%

previous potentially HIV-related presentations

23% had more than one presentation

11%

hospitalised

71% AIDS diagnosis or infection

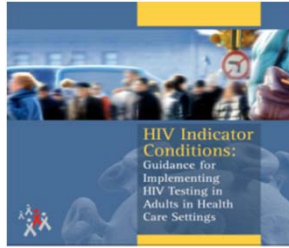
Results – HIV diagnoses per Indicator Condition

	HIV test	HIV +	Prevalence (95%CI)
Total	3588	66	1.84 (1.42-2.34)
STI	764	31	4.06 (2.78-5.71)
On-going mononucleosis-like illness	441	17	3.85 (2.26-6.10)
Leuco/thrombocytopaenia	94	3	3.19 (0.66-9.04)
Herpes Zoster <65 yrs old	207	6	2.89 (1.07-6.21)
Seborrheic dermatitis	97	2	2.06 (0.25-7.24)
Hepatitis B/C	1099	4	0.36 (0.10-0.93)
Cervical or anal dysplasia	542	2	0.37 (0.04-1.32)
Malignant lymphoma	344	1	0.29 (0.01-1.61)

Barriers to testing

Clinician barriers identified within the study

- motivation of colleagues in other specialties to deliver testing
- time pressure on service delivery
- skills - education and training of staff



2012

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

1. Conditions which are AIDS defining among PLHIV*

Strongly recommend testing:	<p>Neoplasms:</p> <ul style="list-style-type: none"> • Cervical cancer • Non-Hodgkin lymphoma • Kaposi's sarcoma <p>Bacterial infections</p> <ul style="list-style-type: none"> • Mycobacterium Tuberculosis, pulmonary or extrapulmonary • Mycobacterium avium complex (MAC) or Mycobacterium kansasii, disseminated or extrapulmonary • Mycobacterium, other species or unidentified species, disseminated or extrapulmonary • Pneumonia, recurrent (2 or more episodes in 12 months) • Salmonella septicaemia, recurrent <p>Viral infections</p> <ul style="list-style-type: none"> • Cytomegalovirus retinitis • Cytomegalovirus, other (except liver, spleen, glands) • Herpes simplex, ulcer(s) >1 month/bronchitis/pneumonitis • Progressive multifocal leucoencephalopathy <p>Parasitic infections</p> <ul style="list-style-type: none"> • Cerebral toxoplasmosis • Cryptosporidiosis diarrhoea, >1 month • Isosporiasis, >1 month • Atypical disseminated leishmaniasis • Reactivation of American trypanosomiasis (meningoencephalitis or myocarditis) <p>Fungal infections</p> <ul style="list-style-type: none"> • Pneumocystis carinii pneumonia • Candidiasis, oesophageal • Candidiasis, bronchial/ tracheal/ lungs • Cryptococcosis, extra-pulmonary • Histoplasmosis, disseminated/ extra pulmonary • Coccidioidomycosis, disseminated/ extra pulmonary • Penicilliosis, disseminated
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3. Conditions where not identifying the presence of HIV infection may have significant adverse implications for the individual's clinical management despite that the estimated prevalence of HIV is most likely lower than 0.1%

Offer testing:	<ul style="list-style-type: none"> • Conditions requiring aggressive immuno-suppressive therapy: <ul style="list-style-type: none"> • Cancer • Transplantation • Auto-immune disease treated with immunosuppressive therapy • Primary space occupying lesion of the brain. • Idiopathic/ Thrombotic thrombocytopenic purpura
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2a. Conditions associated with an undiagnosed HIV prevalence of >0.1%**

Strongly recommend testing:	<ul style="list-style-type: none"> • Sexually transmitted infections • Malignant lymphoma • Anal cancer/dysplasia • Cervical dysplasia • Herpes zoster • Hepatitis B or C (acute or chronic) • Mononucleosis-like illness • Unexplained leukocytopenia/ thrombocytopenia lasting >4 weeks • Seborrheic dermatitis/exanthema • Invasive pneumococcal disease • Unexplained fever • Candidaemia • Visceral leishmaniasis • Pregnancy (implications for the unborn child)
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2b. Other conditions considered likely to have an undiagnosed HIV prevalence of >0.1%

Offer testing:	<ul style="list-style-type: none"> • 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 lymphadenopathy • Unexplained oral candidiasis • Unexplained chronic diarrhoea • Unexplained chronic renal impairment • Hepatitis A • Community-acquired pneumonia • Candidiasis
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* Based on CDC and WHO classification system [46]

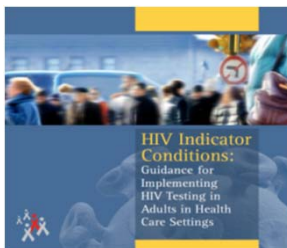
** References in appendix 2

Updates to the table based on future evidence of HIV prevalence in indicator conditions under 2b can be found at www.hiveurope.eu



HIV in Europe 2007
Working Together for
Optimal Testing and Earlier Care

hides
HIV indicator diseases
across Europe study



hides
HIV indicator diseases
across Europe study



2012 –
2014



HIDES 2 - Audit

Audit of HIV testing in Indicator Conditions
Retrospective from May 2013, n=100 or 12 months

Tuberculosis
hepatitis B and C

non-Hodgkins lymphoma
oesophageal candidiasis

anal and cervical Ca

49 audits from 23 centres, representing 7037 patients

The median test rate	<u>%</u>	<u>IQR</u>
All audits	72	32–97
North	44	22–68
South	68	21–98
Central	78	30–91
East	99	86–100

HIDES 2

2012 - 2014

Routine offer of HIV test to patients (18-65 yrs) presenting with indicator condition

Primary endpoint:
demonstration of previously undiagnosed HIV infection >0.1% in each indicator condition (IC)

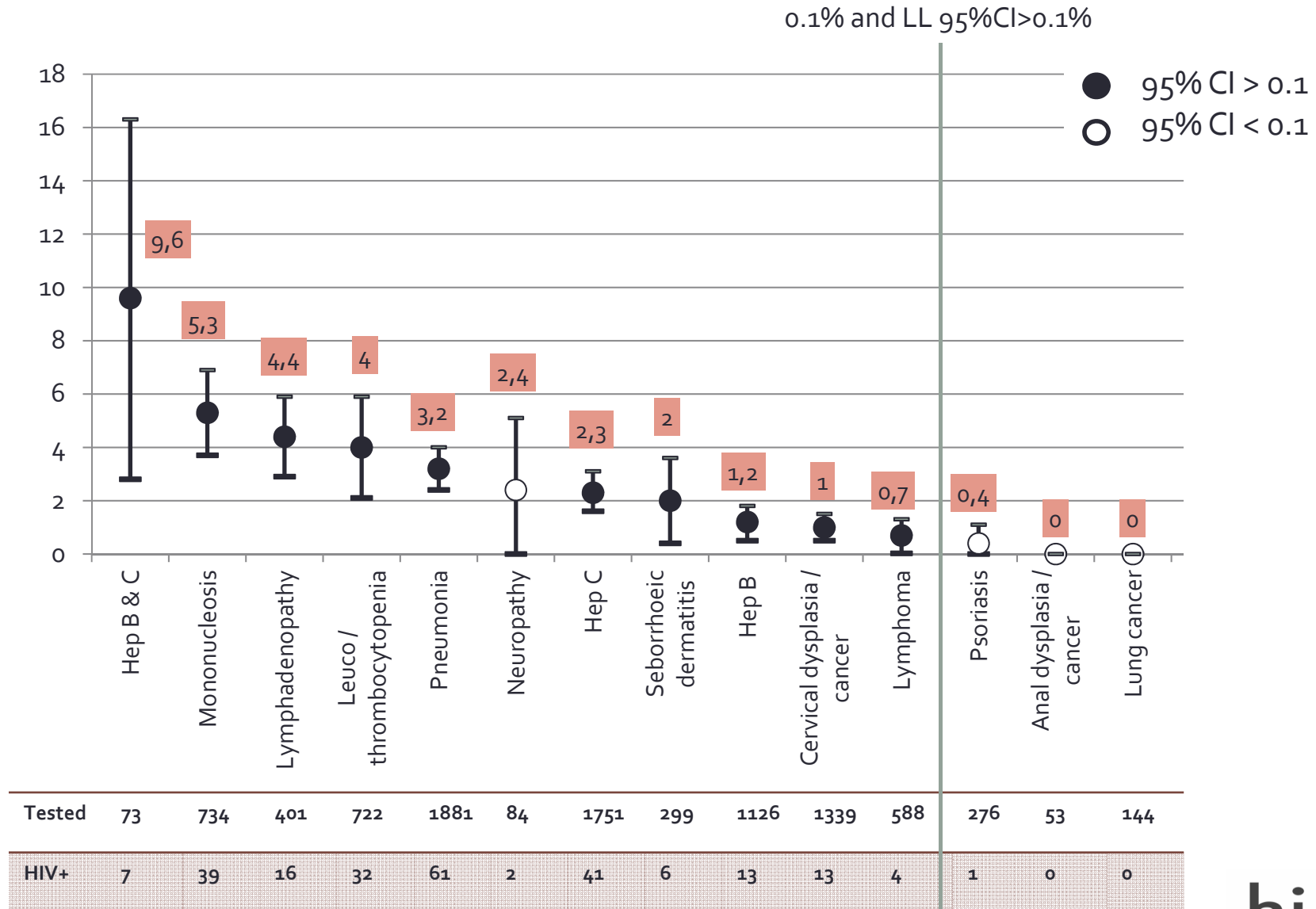
150 surveys were performed, across 42 clinical centres in 20 countries across four regions of Europe

Disease Area	Indicator Conditions
Malignancies	Lymphoma Cervical dysplasia or cancer (CIN II and above) Anal dysplasia or cancer (AIN II and above) Primary lung cancer
Viral infections	Hepatitis B infection Hepatitis C infection Hepatitis B & C co-infection Ongoing mononucleosis-like illness
Haematological disorders	Leucocytopenia and / or thrombocytopenia Lymphadenopathy
Dermatological	Severe psoriasis Seborrhoeic dermatitis
Other	Pneumonia (hospitalised) Peripheral neuropathy

Results

Total number	9471		
Male	54%		
Median age	37 yrs	(IQR 29 – 49 yrs)	
White	86.6%		
Previous HIV test	14.4%		
HIV positive test	235		
HIV prevalence	2.5%	[95%CI 2.2 – 2.8]	
Median CD4 count	200 cells/ μ l	[IQR 65 – 390]	
Late presenters	143	71.9%	
Hx of HIV-associated symptoms	61	28.2%	

HIV prevalence by indicator condition



HIDES 2 extension

INF MONO extension to June 2015

European primary care centres and acute hospitals from HIDES 2

Number	1248
HIV positive	74
Prevalence	5.9 (4.6 – 7.2)*

*(95% confidence limit)

Indicator Conditions Guidelines

Table of Indicator Conditions and HIV testing recommendations have been updated according to the findings in HIDES 2

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

Strongly recommend testing:

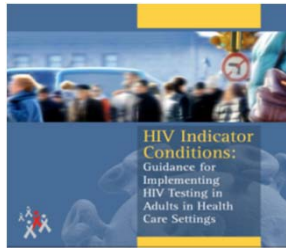
- Sexually transmitted infections
- Malignant lymphoma
- Anal cancer/dysplasia
- Cervical dysplasia
- Herpes zoster
- Hepatitis B or C (acute or chronic)
- Mononucleosis-like illness
- Unexplained leukocytopenia/thrombocytopenia lasting >4 weeks
- Seborrheic dermatitis/exanthema
- Invasive pneumococcal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

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

Offer testing:

- Primary lung cancer
- Subcortical dementia
- Multiplesclerosis-like disease
- Peripheral neuropathy
- Unexplained weightloss
- Unexplained lymphadenopathy
- Unexplained oral candidiasis
- Unexplained chronic diarrhoea
- Unexplained chronic renal impairment
- Hepatitis A
- Community-acquired pneumonia
- Candidiasis

Unexplained Lymphadenopathy
Community-acquired pneumonia



JUN
2014



Co-funded by the
2nd Health
Programme of the
European Union

OptTEST



EU funded programme to increase HIV testing and access to treatment and care

Denmark

Czech Republic, Estonia, France, Greece, Poland, Spain, United Kingdom

Belarus, Georgia, Ukraine

Ireland, Netherlands

HIV Indicator Condition testing

Hepatitis B and C

Pneumonia

Infectious Mononucleosis-like syndrome

Transfer to Care

Cost Effectiveness

Stigma and Legal barriers



Co-funded by the 2nd
Health Programme of
the European Union

Indicator Condition guided HIV testing



Strategic pack

- slide set
- specialty guideline review
- missed diagnosis review and cost burden analysis
- business case proforma

Interactive service design module

- staff roles and responsibilities
- care pathways (incl transfer to care)
- test selection
- results governance

Staff training module

- interactive
- testing scenarios
- assessment

Resource pack

- patient support
- evidence, guidelines

Quality Improvement methodology (PDSA, SPC) to increase coverage



Co-funded by the 2nd
Health Programme of
the European Union

Interactive service design module



Added action to checklist:

Find out if you are required to document consent to an HIV test.

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

PLANNING

There are different ways to offer an HIV test. HOW will the HIV test be offered to your patients?

Will your offer of an HIV test be presented to the patient as "Opt-out" or "Routine offer"?

- Opt-out: The patient is notified that the HIV test is always performed as part of routine investigations and he/she needs to inform the staff if he/she chooses not to test.
- Routine offer: The patient is offered an HIV test and he/she is required to agree to test.

HIV testing is voluntary - the patient should provide informed consent. Is verbal consent sufficient in your setting, or are there requirements to document a patient's consent? If so, where and by whom?

Now please answer the questions on the right

Offering an HIV test

Test offer:

- Routine offer
- Opt-out

Are you required to document consent?

- Yes*
- No
- Don't know

Previous

Next

PLANNING

Who will offer an HIV test?

In your service, are there any restrictions on which members of staff can offer an HIV test?

Offering an HIV test should be within the competence of any health care professional.

There is no need for special counselling skills beyond those required for routine clinical practice. Additional training can be found in Tool 3 (education and training for staff).

Are there opportunities to involve other health care workers or other members of the team in HIV testing - phlebotomists, health care assistants, receptionists etc.?

Consider which members of staff could offer an HIV test (with additional education/training/support)

Now please answer the questions on the right

Who will offer an HIV test?

Who can offer the HIV test?

- Doctor
- Nurse
- Physician's assistant
- Health Care assistant
- Phlebotomist
- Other*

*Please give details below:

Who could offer the HIV test?

- Doctor
- Nurse
- Physician's assistant
- Health Care assistant
- Phlebotomist
- Other**

Check list

OptTEST WP5 Tool 2 – Checklist to support planning for introduction of indicator-condition guided HIV Testing

Key groups to involve in the planning:

Your team	Lab team	HIV Team	Your patients
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Points to Consider	Your Plan for your Service – Based on your Tool 2 Responses	Any Further Action Needed to complete planning?
Planning - Offering an HIV test in your service		
<u>HOW will the HIV test be offered</u> to your patients? (•Routine offer or •Opt-out?)	ROUTINE OFFER	
<u>Are you required to document CONSENT</u> to an HIV test? (•Yes – where and by whom? •No, •Don't know)	DON'T KNOW →→	"Don't know" response = ACTION: Discuss with your local HIV and/or local information governance team.
<u>WHO can currently offer</u> an HIV test to your patients? (•Doctor, •Nurse, •Physician's Assistant, •Health Care Assistant, •Phlebotomist, •Other – if Other please give details of other staff groups) [S6]	DOCTOR, NURSE	
<u>WHO could offer</u> an HIV test with additional training/education/support? (•Doctor, •Nurse, •Physician's Assistant, •Health Care Assistant, •Phlebotomist, •Other – if Other please give details of other staff groups) [S6]	HEALTH CARE ASSISTANT	
When are patients' <u>CONTACT DETAILS</u> verified: (•At reception, •When obtaining consent, •When taking blood sample, •Other – if Other, please give details) [S7]	WHEN OBTAINING CONSENT	
Pre-test discussion / <u>Patient information leaflet (PIL)</u> Will you use a patient information leaflet in your service? (•Yes- see additional question below, •No) [S8]	YES	

Example of a patient information leaflet

HAVING AN HIV TEST IN THE HEPATITIS CLINIC
Chelsea and Westminster Hospital Foundation Trust

INFORMATION FOR PATIENTS

HIV (the human immunodeficiency virus) is a virus that affects the immune system and causes AIDS if left untreated.

HIV is now a manageable infection with medication. Successful treatment depends on identifying the infection at an early stage.

There are some conditions that occur more frequently in people with HIV infection, including Hepatitis B and C.

We are now routinely offering HIV tests to all people with these conditions, as recommended by National Guidelines.

Most people with these conditions will not have HIV infection, but we think it is worthwhile that everyone takes the test.

During your assessment by the Hepatology team, you will be asked if you agree to have an HIV test. We will conduct this test on a blood sample. You can ask any questions you may have, and you do not have to have the test. Declining to have an HIV test will in no way affect the care you receive.

The test looks for the presence of antibodies (proteins produced by you) and antigen (virus) in the blood that may indicate whether or not you are infected with HIV.

The HIV test result may be "negative," which means you do not have HIV infection, or "reactive" which means you require further tests to see whether or not you have HIV infection. Any patient with a "reactive" test result will be asked to attend the John Hunter Clinic at Chelsea and Westminster for further tests.

Taking an HIV test is confidential. Taking the test, and testing negative, has NO implications for insurance or mortgage applications.

If you feel you have been at risk of acquiring HIV infection in the past 3 months you should test today, and then repeat the test at 3 months. We can help arrange for you to do this.

HAVING AN HIV TEST IN THE HEPATITIS CLINIC
Chelsea and Westminster Hospital Foundation Trust

INFORMATION FOR PATIENTS

Receiving your test result:

If your result is reactive – or we need to contact you for any other reason (for example technical problems with your sample) – you will be contacted by a member of our Health Advisor Team at the John Hunter Clinic for Sexual Health.

It is essential that you verify with reception that the telephone/mobile number on our system is the correct contact number for you.

Negative results will be available two weeks after testing. You can obtain this result in one of the following two ways:

Send an email to chelwest.testing@nhs.net including the following information – your name, date of birth, hospital number and state 'Please send me my HIV test result'

Or call our answerphone on 020 3315 6123 and leave your name, date of birth, hospital number, contact telephone/ mobile number and state 'Please call me back about my HIV test result'

Alternatively, if you have a follow-up appointment in the Hepatitis Clinic you can ask for your result at that appointment.

You are welcome to call the John Hunter Clinic's Health Adviser Team on the number below if you have any other questions or concerns regarding your HIV test.

John Hunter Clinic
Health Advisers: (020) 3315 6155
Helpline open:
9.30am - 5pm Mon, Tues, Thurs, Fri,
12.30pm - 5pm Weds

Please keep this leaflet for your reference.

Date attended: __ / __ / 201__

Result due by: __ / __ / 201__3

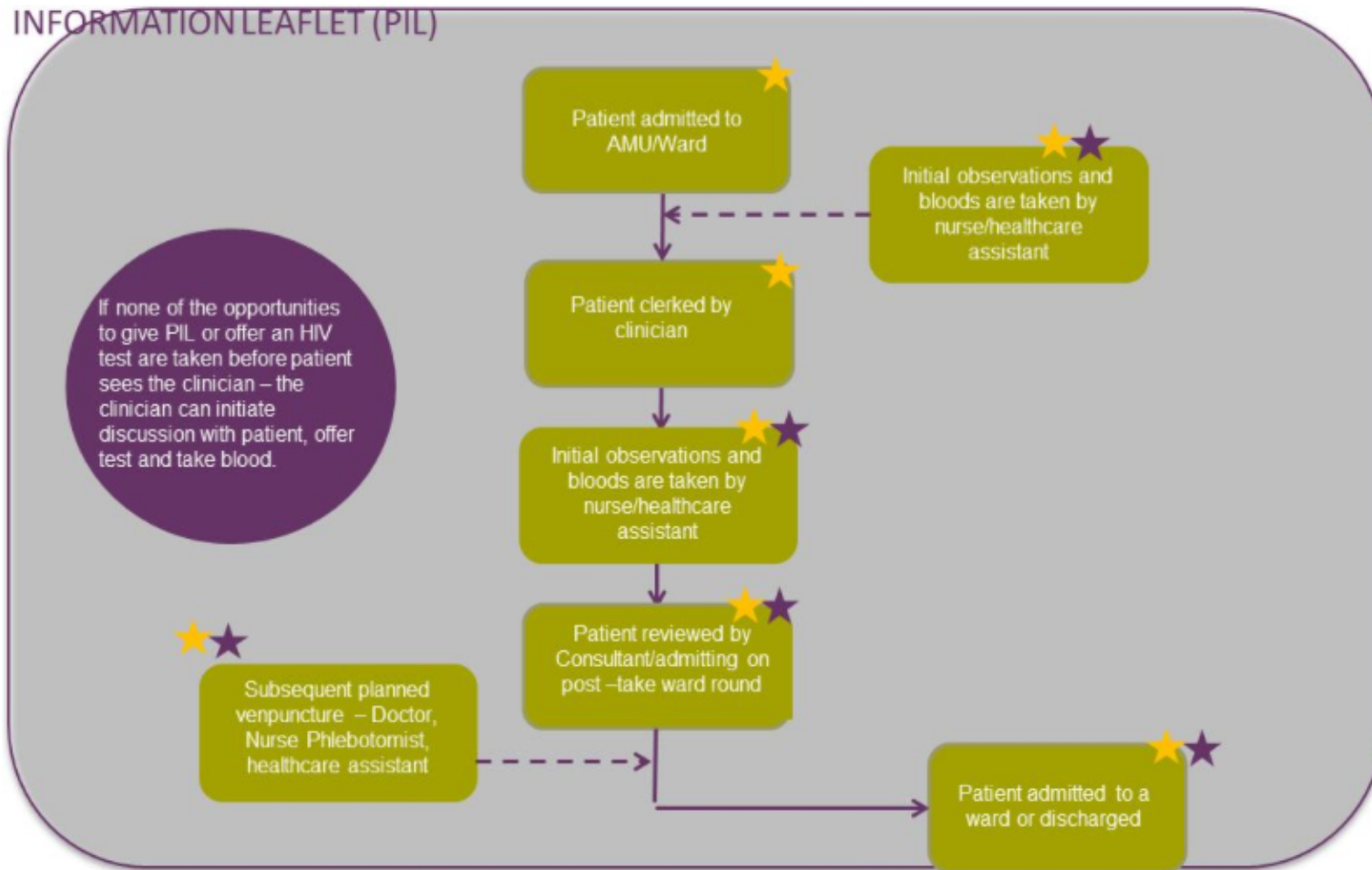
February 2016

2. EXAMPLE OF TESTING PATHWAY IN ACUTE MEDICAL ADMISSION UNIT OR INPATIENT WARD- HIGHLIGHTING OPPORTUNITIES FOR HIV TESTING AND PROVISION OF PATIENT INFORMATION

LEAFLET (PIL)

INFORMATION LEAFLET (PIL)

If none of the opportunities to give PIL or offer an HIV test are taken before patient sees the clinician – the clinician can initiate discussion with patient, offer test and take blood.



We will now take you through the steps to produce your own pathway, asking you to identify where there are the opportunities for HIV testing

Enter the role corresponding to the staff member the patient would encounter at each step of the pathway against each number below. Entering a zero against a number will remove that part of the pathway.

If your pathway is much more complex please click **here** to go to a proforma you can adapt

1 =

2 =

3 =

4 =

5 =

6 =

While it will be technically possible to generate a personalised pathway via these webpages, we don't have that functionality available at the moment. Please enter below the names of staff the patient would encounter as they travel through your service:

1 =

2 =

3 =

4 =

5 =


6 =

Update pathway

Previous Next

Online Staff Training module

HIV testing in indicator conditions

OptTEST 

Learning session EXIT

<input type="checkbox"/> Introduction	<input type="checkbox"/> Welcome to HIV testing in indicator conditions
<input type="checkbox"/> Check your knowledge	<input type="checkbox"/> Learning objectives
<input type="checkbox"/> Why test for HIV?	
<input type="checkbox"/> The test	
<input type="checkbox"/> Giving test results	
<input type="checkbox"/> Assessment	

Key: Not Started Started Complete

ZOOM

The screenshot shows a training interface. At the top, the title 'HIV testing in indicator conditions' is displayed next to the 'OptTEST' logo. Below the title is a red progress bar with a 'Learning session' indicator and an 'EXIT' button. A table of contents is shown on the left, with 'Introduction' and 'Welcome to HIV testing in indicator conditions' highlighted. The main area features a video player showing a man and a woman sitting at a desk with a computer. A legend at the bottom left explains the progress status icons: a white square for 'Not Started', a square with a downward-pointing triangle for 'Started', and a solid black square for 'Complete'. A 'ZOOM' button is located at the bottom left of the interface.

HIV testing in indicator conditions



▣ Learning session

▶ Why test for HIV?

🏠 MENU

HIV indicator conditions

You can see the list of indicator conditions associated with each specialty by clicking on the buttons below. We recommend that you click on your own specialty at least. [Alternatively you can click here to see the full list of indicator conditions.](#)

Respiratory/
Pulmonology

Neurology and
neurosurgery

Dermatology/
genitourinary
medicine

Gastroenterology/
hepatology

Oncology

Gynecology/
Obstetrics

Haematology

Infectious
Diseases/ Internal
medicine

Rheumatology

Ophthalmology

Ear Nose Throat

Nephrology



🔍 ZOOM



Replay

HIV testing in indicator conditions



▣ Learning session

▶ Why test for HIV?

🏠 MENU

HIV indicator conditions

You can see the list of indicator conditions associated with each specialty by clicking on the buttons below. We recommend that you click on your own specialty at least. [Alternatively you can click here to see the full list of indicator conditions](#)

Respiratory/ Pulmonology	Neurology and neurosurgery	Dermatology/ genitourinary medicine	Gastroenterology/ hepatology
Oncology	Gynecology/ Obstetrics	Haematology	Infectious Diseases/ Internal medicine
Rheumatology	Ophthalmology	Ear Nose Throat	Nephrology

Specialty: Dermatology/dermatovenereology/ genitourinary medicine

- Kaposi's sarcoma
- Herpes Simplex ulcer(s)
- Atypical disseminated leishmaniasis
- Penicilliosis, disseminated
- Seborrheic dermatitis/exanthema
- Herpes zoster
- Sexually transmitted infections
- Hepatitis B or C (acute or chronic)
- Severe or recalcitrant psoriasis
- Candidaemia
- Candidiasis

Yellow: Conditions which are AIDS defining among PLHIV - strongly recommend testing.

Blue: Conditions associated with an undiagnosed HIV prevalence of >0.1% - strongly recommend testing. Other conditions considered likely to have an undiagnosed HIV prevalence of >0.1% - offer testing.

Green: Conditions where not identifying the presence of HIV infection may have significant adverse implications for the individual's clinical management despite that the estimated prevalence of HIV is most likely lower than 0.1% - Offer testing.



🔍 ZOOM



HIV testing in indicator conditions



Learning session

The test

MENU

Offering an HIV test - Jean Luc

Would you like to have an HIV test? We could do one for you today.

If the doctor offers an HIV test to the patient in the following way, how do you think this might make the patient feel?

Write your thoughts below and then click 'Confirm'

CONFIRM



ZOOM



HIV testing in indicator conditions

Offering an HIV test - Jean Luc



Would you like to have an HIV test? We could do one for you today.

If the doctor offers an HIV test to the patient in the following way, how do you think this might make the patient feel?
Write your thoughts below and then click 'Confirm'

Why does she want me to have an HIV test?

CONFIRM



HIV testing in indicator conditions

Offering an HIV test - Jean Luc

Would you like to have an HIV test? We could do one for you today.

Why is she suggesting a test? Does she think I have HIV?

Why should I be more at risk of HIV than anyone else?

How dare she suggest I might be at risk of HIV?



Continue to the following page for the next example

HIV testing in indicator conditions

▣ Learning session

▶ Giving test results

🏠 MENU

Giving a positive HIV test result - Elena, Peter and Joseph

Patients' responses to a positive HIV test result can vary greatly. Here are some examples of how you could give a positive result in ways that will help them understand and process this information.

Click on the audio buttons to listen.

[You can click here to read Elena's history](#)

[You can click here to read Peter's history](#)

[You can click here to read Joseph's history](#)



[You can click here to view the audio transcript](#)

[You can click here to view the audio transcript](#)

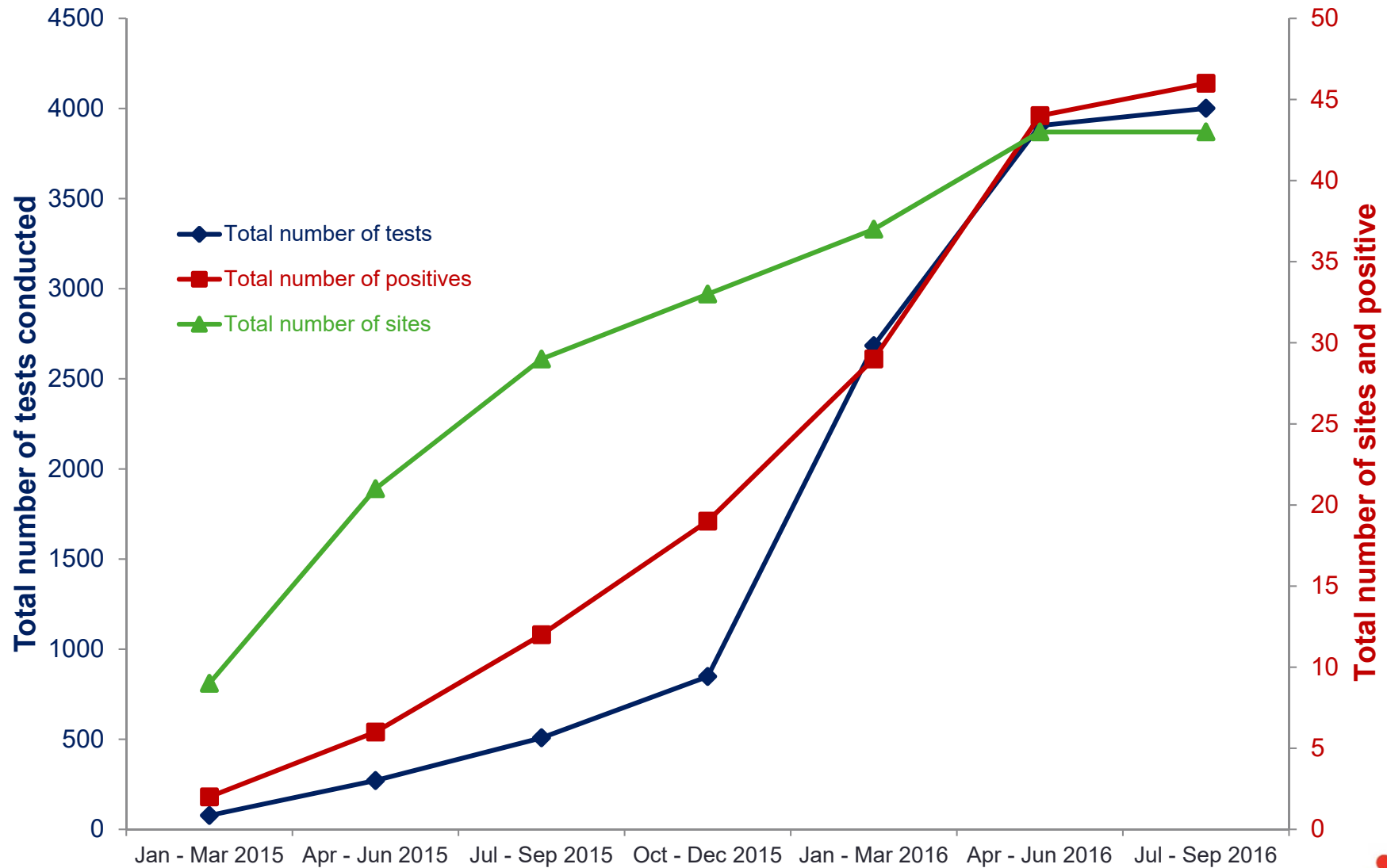
[You can click here to view the audio transcript](#)



🔍 ZOOM



OptTEST site numbers



OptTEST results

HIV positivity 1.5%

Preliminary linkage to care data

57 patients; 3 known positive (not engaged with care a time of testing)

Data available	46	
Linked to care	38	82%
Not linked	8	4 PWID (2 of whom also new HCV) 2 foreign born; left the country

Stage (n=30)

CD4 cell count	11-1041 cells/ μ L
Median	338 cells/ μ L
Late Diagnosis	16 53%

2 had CD4 count reported but not linked to care

Challenges



Motivation of colleagues in other specialties

Slide set

Specialty guideline review

Operational

time pressure

staff experience

Interactive service design module

Staff skills

HIV specific concerns: stigma, targeting,
dealing with positive results

Staff training module

Resource pack (patient support groups)

Cost

Missed diagnosis review and cost burden analysis

Business case proforma

Outcome data

Sustainability

Business case proforma

Outcome data



Other challenges

Stigma and legal barriers – OptTEST work stream
website: <http://legalbarriers.peoplewithhiveurope.org>

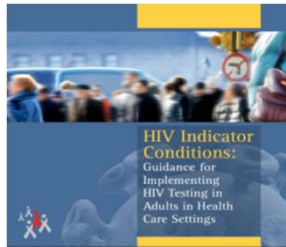
Individuals' awareness

- public education
- patient and community organisations
- disease specific organisations

Infectious mononucleosis-like syndrome

- raise awareness especially in high risk groups
- PIL development with EATG





LINK2CARE



Co-funded by the
2nd Health
Programme of the
European Union


The website (www.opttest.eu)



Co-funded by the 2nd Health Programme of the European Union

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Optimising testing and linkage to care for HIV



About OptTEST

Newsletters

Presentations

News:

OptTEST Newsletter #9

Read about OptTEST national Continuum of Care meetings in Greece and Poland, national cost-effectiveness seminars in France, Spain and Estonia - and other activities and upcoming events [here](#).

Cost-effectiveness

WP6 presented results at a national level meeting in Estonia on the 19th December. The meeting took place in the Ministry of Social Affairs. The aim was to introduce the methods and

