Comparison of “Indicator conditions” versus “universal testing” strategies for HIV detection in primary care centers.

Ignacio Menacho[1], Ethel Sequeira[2], Mercè Muns[3], Olga Barba[4], Thaïs Clusa[2], Lorna Leal[5], Emma Fernández[5] Dorthe Raben[6], Jens Lundgren[6], Ignacio Pérez[5], Felipe García[5], Jose María Gatell[5], **Agathe León[5]** for UCC and HIV Indicator Diseases Across Europe Study Group.

[1]CAP Les Corts, [2]CAPSE Casanova, [3]CAP Raval Sud, [4]CAPSE Rosellón, [5]Infectious Diseases Unit, Hospital Clinic,Barcelona, [6]HIV Indicator Diseases Across Europe

Objectives

In primary care centers:

1. To test all persons with 4 selected indicator conditions (Indicator strategy).

2. To test in a randomly selected sample (1/10) the remaining patients attending these centers (Universal strategy).

Methods

- A multicenter, prospective study in 4 Primary Care Centers (PCC) of Barcelona was undertaken (September 2009-March 2011)
- Eligible patients: 18-65 years old.

Indicator strategy	Universal strategy
Herpes Zoster Seborrheic Eczema Mononucleosic S Leucopenia/Thrombopenia >4 weeks	1 of every 10 randomly selected patients visited for other than the previous indicator conditions.

Methods

- Written inform consent.
- Questionnaires: Sociodemographic and sexual behavior; HIV testing history and clinical information.
- Patients recruited in indicator strategy were included in HIDES I of HIV in Europe.
- Blood rapid test (Determine® HIV-1/2 Ag/ Ab Combo)
  Cost for 1 test: 6€.
- Education and training of staff involved

Results

Indicator strategy	Universal Strategy
Primary Care census with the 4 selected indicators **775** Offered screening* 89 Accepted screening 85 Completed testing **85**	Primary Care census **66043** Offered screening (random selection 1/10)* 344 Accepted screening 313 Completed testing **304**

*Only committed participating physicians during selected periods of the week

Indicator strategy		Universal Strategy	
Census	Offer rate	Census	Offer rate
775	**11.5 %**	66043	**0.5%**
Offered screening	Acceptance R	Offered screening	Acceptance R
89	94.4%	344	90.9%
Accepted Scre.	Completion R	Accepted Scre.	Completion R
85	100%	313	97.1%
Completed testing	Overall rate	Completed testing	Overall rate
85	10.9%	304	0.46%

Comparison baseline characteristics

Variable	Indicator	Universal	P
Age*	36 (30-50)	35 (28-49)	*0,85*
Male**	60 (71)	117 (39)	***0,0001***
PCC**			
C1, C2, C3	38 *(45)*	261 *(86)*	***0,0001***
C4	*47 (55)*	42 *(14)*	
MSM*	8 *(9)*	16 *(5)*	*0,27*
Never used Condoms *	42 *(49)*	128 *(42)*	***0,002***
Previous STD	12 (14)	19 (6)	***0,021***
Nº 3-5 Visits HCS	6 (7)	1 (0.3)	***0,0001***
Previous HIV test	29 (34)	123 (41)	*0,12*

*: Number (%). **:Median (IQR).

HIV prevalence

Indicator strategy	Universal strategy
Completed testing: 85	Completed testing: 304
HIV Positive: 4	HIV Positive: 1
Prevalence	**Prevalence**
4.7% (95%CI: 1.3-11.6)	**0.3% (95%CI: 0.01-1.82)**
P= 0.009	

Baseline characteristics of HIV newly diagnosed

Variable	Indicator n=4	Universal n=1
Male	4	1
Median Age	38	32
PCC	C4	C2
Caucasian	3	1
MSM	3	1
1-3 Visits to HCS	4	1
Actual ID **MNS** **L/T**	 2 2	Dermatitis
≥4 sexual partners/year	3	1
Previous STD	3	1
Previous HIV test	3	1

Direct cost per new HIV diagnosis

Indicator strategy	Universal strategy
HIV Prevalence	HIV Prevalence
4.7% (95%CI: 1.3-11.6)	0.3% (95%CI: 0.01-1.82)
Primary Care census	Primary Care census
775	66043
Potential HIV +	Potential HIV +
36 (95%CI: 25-49)	**198 (95%CI: 171-227)**
Overall Cost 4,650 euros	Overall Cost 396,258 euros
Cost per HIV diagnosis	**Cost per HIV diagnosis**
129€ (95%CI: 107-153)	**2,001€ (95%CI: 1,913-2,088)**

Discussion: Comparison with HIDES I

Indicator strategy
HIV Prevalence
4.7% (95%CI: 1.3-11.6)
HIDES I MON+CYT combined (n=535)
3.7% (95%CI: 2.3-5.7)
Potential HIV +
28 (95%CI: 18-40)
Direct Cost per HIV diagnosis
166€ (95%CI: 141-193)

Conclusions

Four selected indicators condition-guided HIV testing, seems to be feasible and less costly (direct cost) strategy to improve diagnosis of HIV infection than in universal population in our environment.