Regione Emilia-Romagna

In collaborazione con:

SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA
Azienda Unità Sanitaria Locale di Piacenza

Direzione Generale
Dipartimento degli Staff
U.O. Qualità e Formazione

Infezione da HIV:
uno sguardo al futuro

Seminario di studio
Bologna, 30 maggio 2018

Sala 20 maggio 2012
Viale della Fiera 8 • Bologna

Il problema della late presentation in Emilia Romagna

Laura Sighinolfi

U.O.Malattie Infettive
Azienda Ospedaliero Universitaria
Ferrara

Late presentation of HIV infection: a consensus definition

A Antinori,[1] T Coenen,[2] D Costagiola,[3] N Dedes,[4] M Ellefson,[5] J Gatell,[6] E Girardi,[1] M Johnson,[12] O Kirk,[5] J Lundgren,[5] A Mocroft,[7] A d'Arminio Monforte,[8] A Phillips,[7] D Raben,[5] JK Rockstroh,[9] C Sabin,[7] A Sönnerborg[10] and F de Wolf[11] for the European Late Presenter Consensus working group*

Two definitions were agreed upon, as follows.

- *Late presentation:* Persons presenting for care with a CD4 count below 350 cells/μL or presenting with an AIDS-defining event, regardless of the CD4 cell count.
- *Presentation with advanced HIV disease:* Persons presenting for care with a CD4 count below 200 cells/μL or presenting with an AIDS-defining event, regardless of the CD4 cell count.

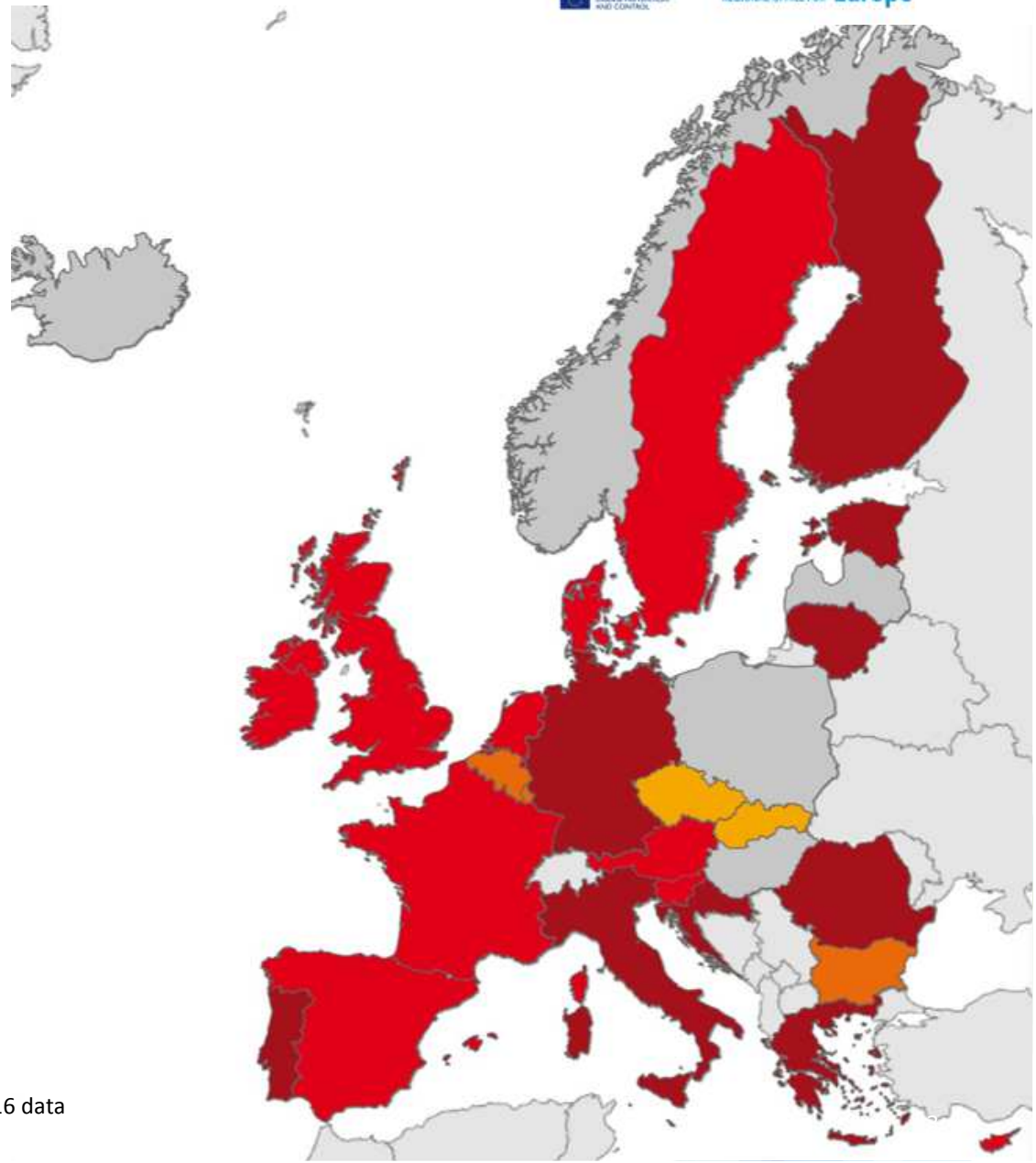
HIV Medicine (2011), 12, 61–64

Late diagnosis, 2016, EU/EEA

2016 - 29444 casi

% persons with CD4 <350 cells/mm³ at HIV diagnosis

- <30%
- 30 to <40%
- 40 to <50%
- >50%
- Missing data or did not report



EU/EEA Average: 48%

Non-visible countries

- Luxembourg
- Malta

Source: ECDC/WHO (2017). HIV/AIDS Surveillance in Europe 2017– 2016 data

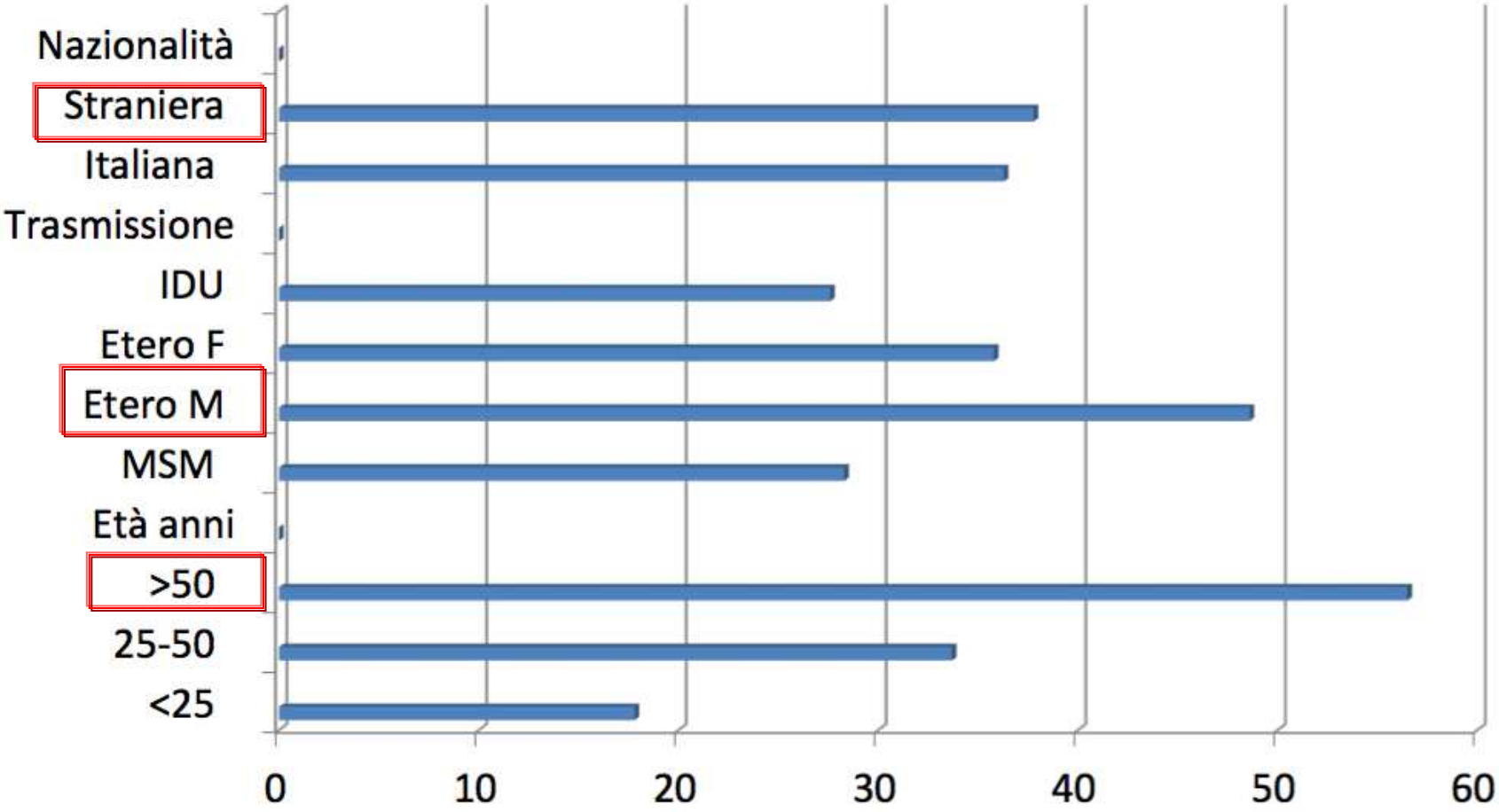
Ritardo di diagnosi in Italia *(ISS –COA 2017)*

	2010	2011	2012	2013	2014	2015	2016
Numero mediano di CD4 alla diagnosi (IQR)	322 (106-525)	307 (114-519)	310 (110-514)	302 (100-505)	323 (119-525)	311 (102-519)	305 (110-518)
Numero totale diagnosi con CD4 <200 (%)[a]	1.059 (35,5)	1.017 (35,1)	1.188 (36,6)	1.110 (37,4)	1.035 (35,0)	1.016 (36,5)	987 (36,9)

Diagnosi tardive (CD4 < 200/mmc) 36,9%

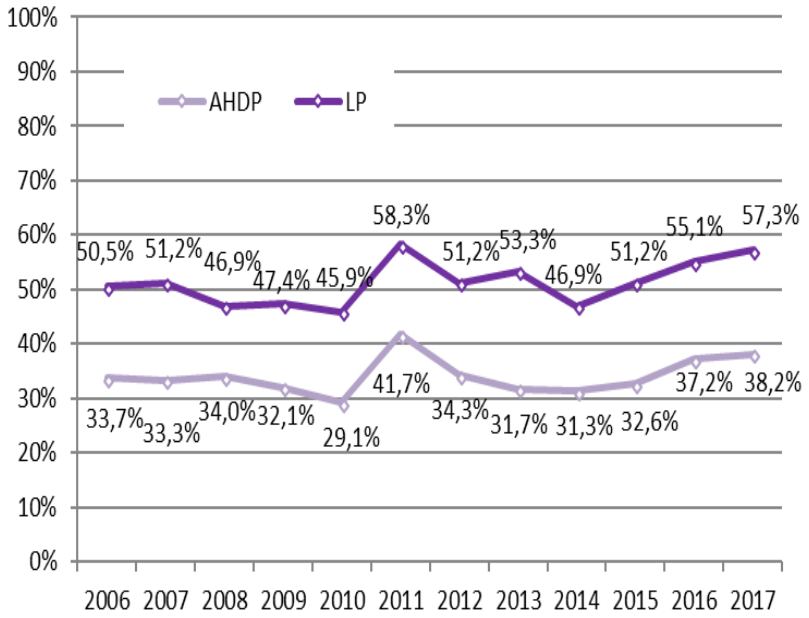
Diagnosi in persone inconsapevoli 40%

Proporzione di diagnosi di infezione da HIV con linfociti CD4 <200/mmc Italia 2010-2016



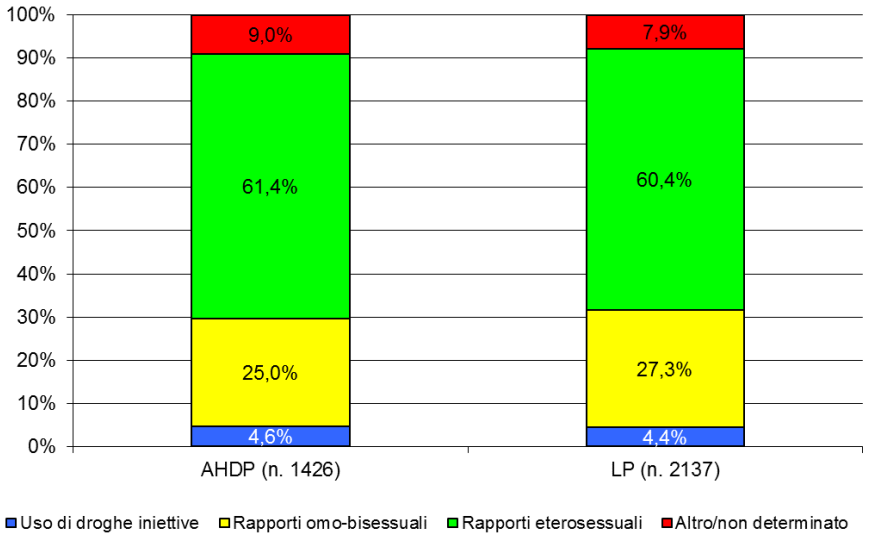
ISS – COA 2017

Emilia Romagna - Late presenters (2006-2017)

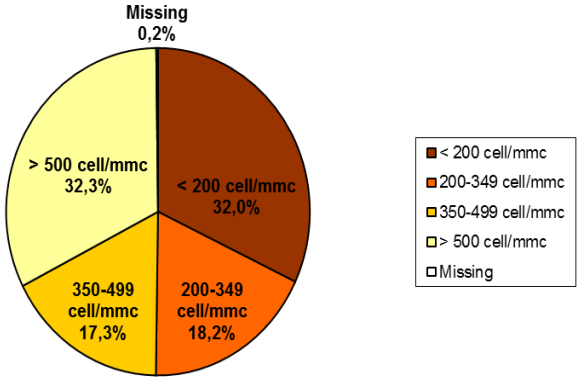


Late presenters: 57,3% (2017)

- **34,9% stranieri**
- **71,4% maschi**
- **87,7% trasmissione sessuale**



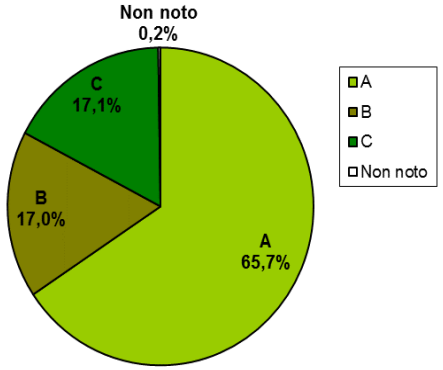
Emilia Romagna - Late presenters (2006-2017)



CD4 al momento della diagnosi.

Età mediana alla diagnosi	
LP	42 anni
LP maschi	43 anni
LP femmine	37 anni

Stadio clinico al momento della diagnosi.



	sex		Totale
	Femmina	Maschio	
	N	N	N
Altro (specificare)	26	63	89
Contatto accidentale con sangue	0	0	0
Controllo in gravidanza	45	5	50
Da campagna informativa	2	7	9
Donazione sangue/organo/tessuto/sperma	0	2	2
Madre HIV+	1	0	1
Non indicato	9	10	19
Partner HIV+	8	28	36
Per percezione di rischio	22	101	123
Prima di intervento chirurgico	7	12	19
Sospetta patologia HIV correlata o MST	245	806	1051
Test offerto da Servizi (consultori, Sert, carcere, etc.)	12	15	27
Totale	377	1049	1426

LP200 residenti

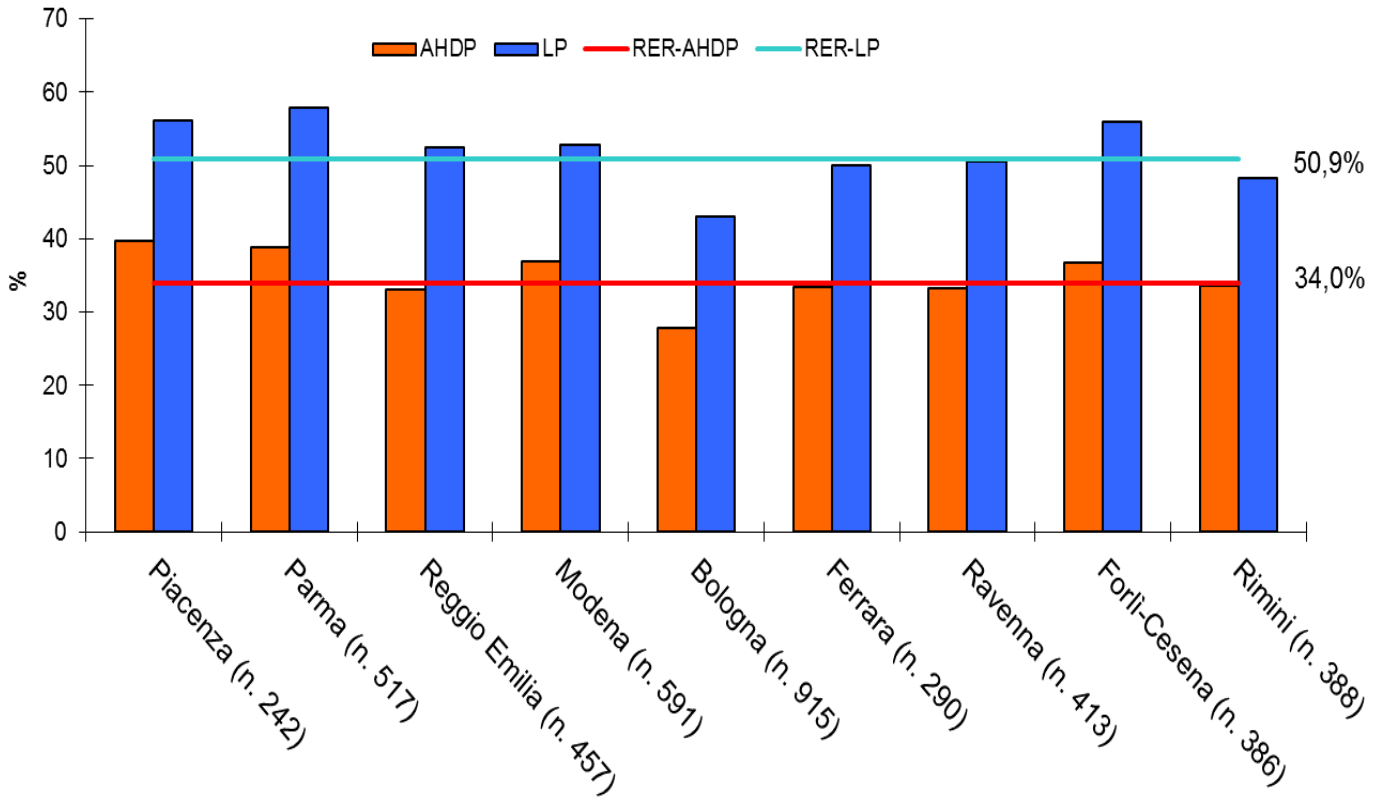
'

	sex		Totale
	Femmina	Maschio	
	N	N	N
Altro (specificare)	56	112	168
Contatto accidentale con sangue	0	1	1
Controllo in gravidanza	96	9	105
Da campagna informativa	3	10	13
Donazione sangue/organo/tessuto/sperma	2	12	14
Madre HIV+	1	0	1
Non indicato	16	19	35
Partner HIV+	30	58	88
Per percezione di rischio	54	260	314
Prima di intervento chirurgico	14	23	37
Sospetta patologia HIV correlata o MST	311	991	1302
Test offerto da Servizi (consultori, Sert, carcere, etc.)	28	31	59
Totale	611	1526	2137

LP350 residenti

Motivo esecuzione test AHDP e LP per sesso - periodo 2006-2017

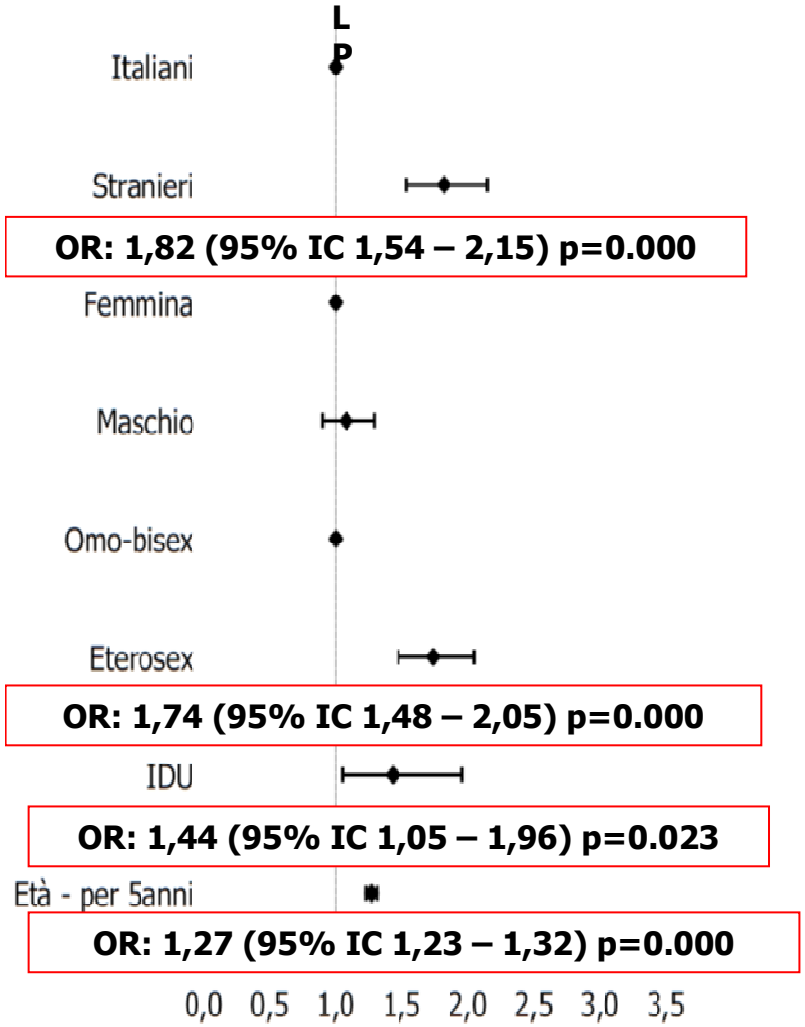
Emilia Romagna - Late presenters (2006-2017)



Advanced HIV Disease Presenters e Late Presenters per provincia di residenza.

Fattori correlati alla Late presentation

Residenti in Emilia-Romagna, 2006-2017

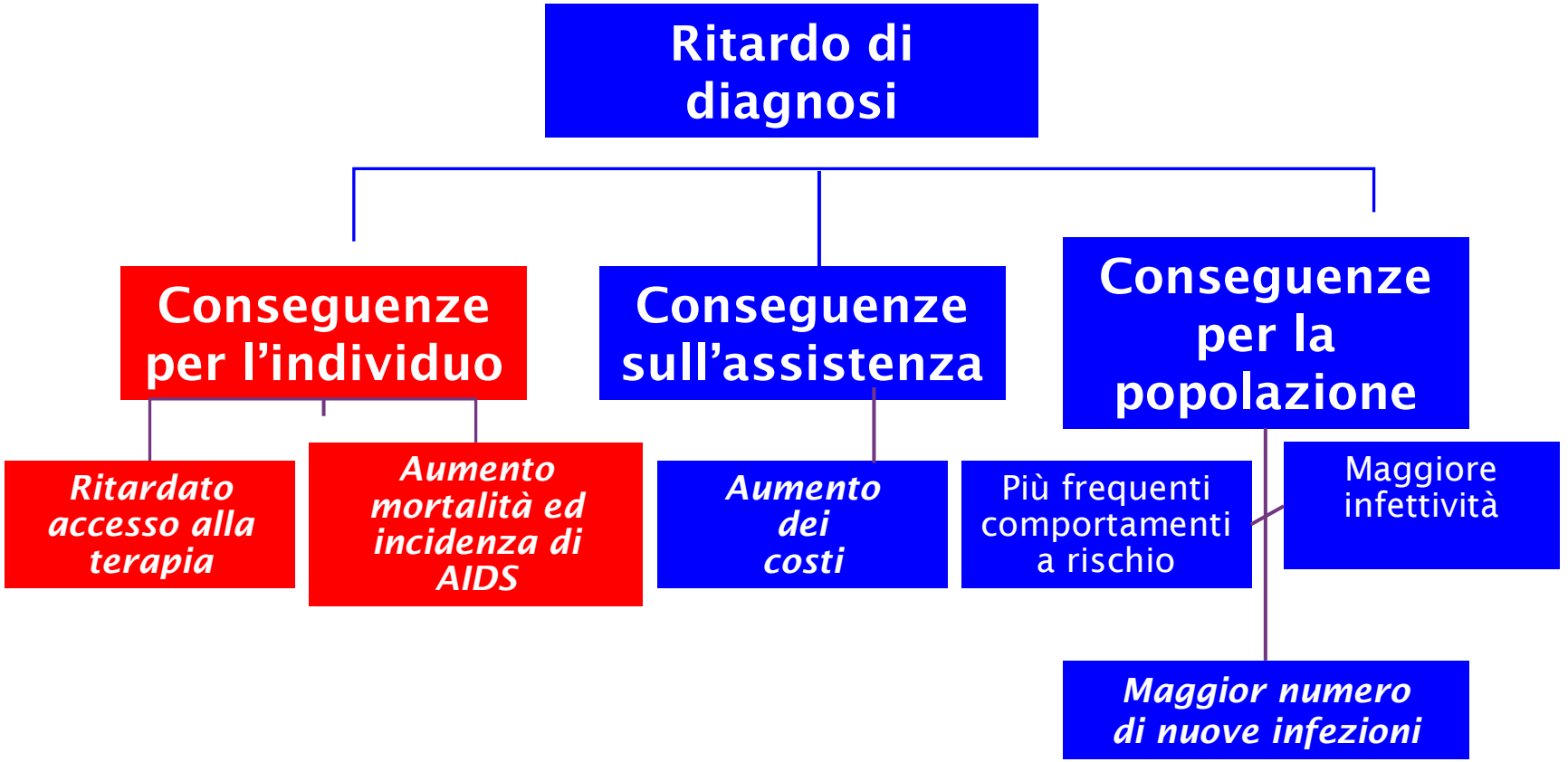


Caratteristica	AHDP				LP			
	O.R.	I.C. al 95%		p-value	O.R.	I.C. al 95%		p-value
Italiani	1				1			
Stranieri	1,62	1,37	1,93	0,000	1,82	1,54	2,15	0,000
Femmina	1				1			
Maschio	1,34	1,11	1,60	0,002	1,08	0,90	1,29	0,392
Omo-bisex	1				1			
Eterosex	1,88	1,58	2,23	0,000	1,74	1,48	2,05	0,000
IDU	1,68	1,21	2,34	0,002	1,44	1,05	1,96	0,023
Età *(per incrementi di 5 anni)*	1,26	1,22	1,30	0,000	1,27	1,23	1,32	0,000

E.Massimiliani 2018

RegioneEmiliaRomagna

Conseguenze del ritardo di diagnosi



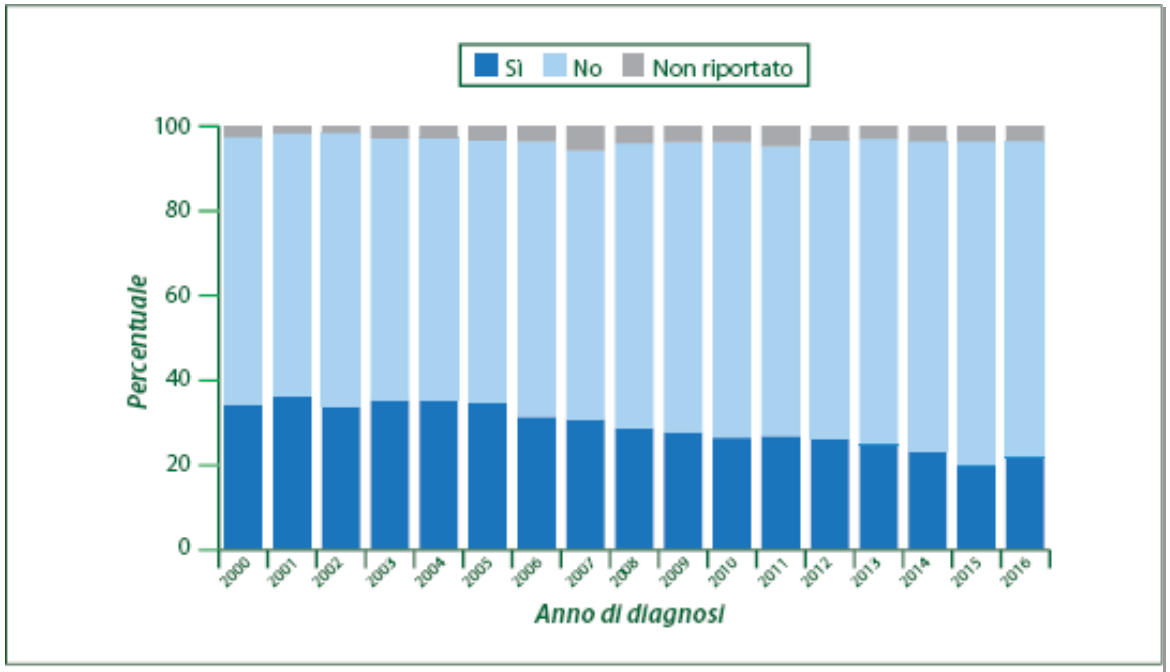


Figura 16 - Uso di terapie antiretrovirali pre-AIDS (2000-2016)

Minore accesso alla terapia ART

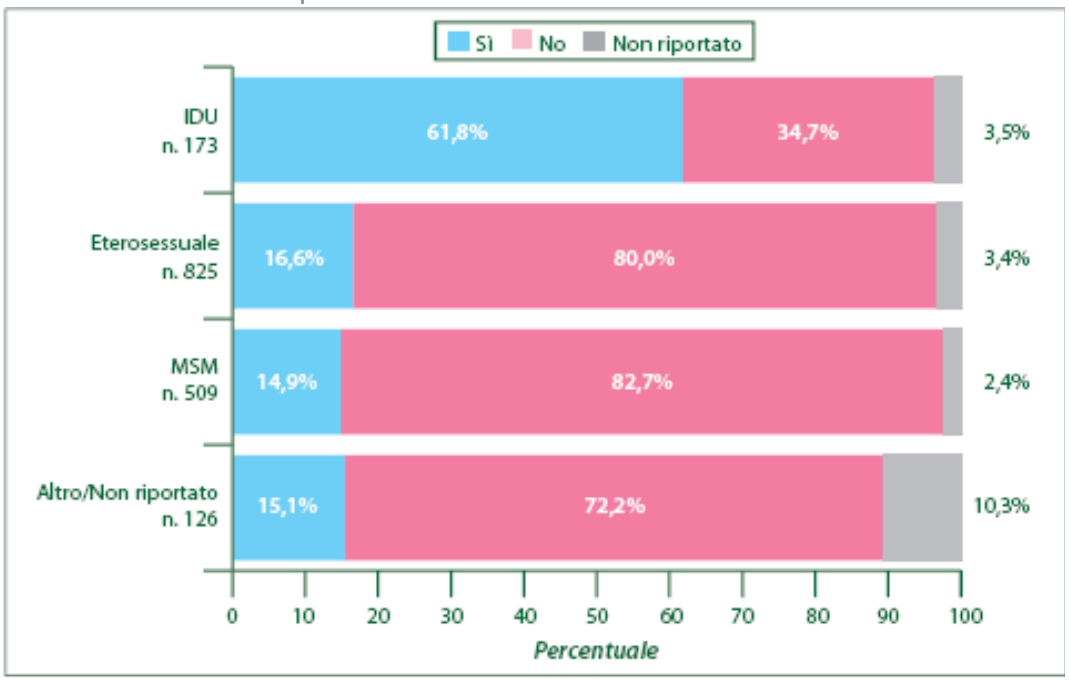
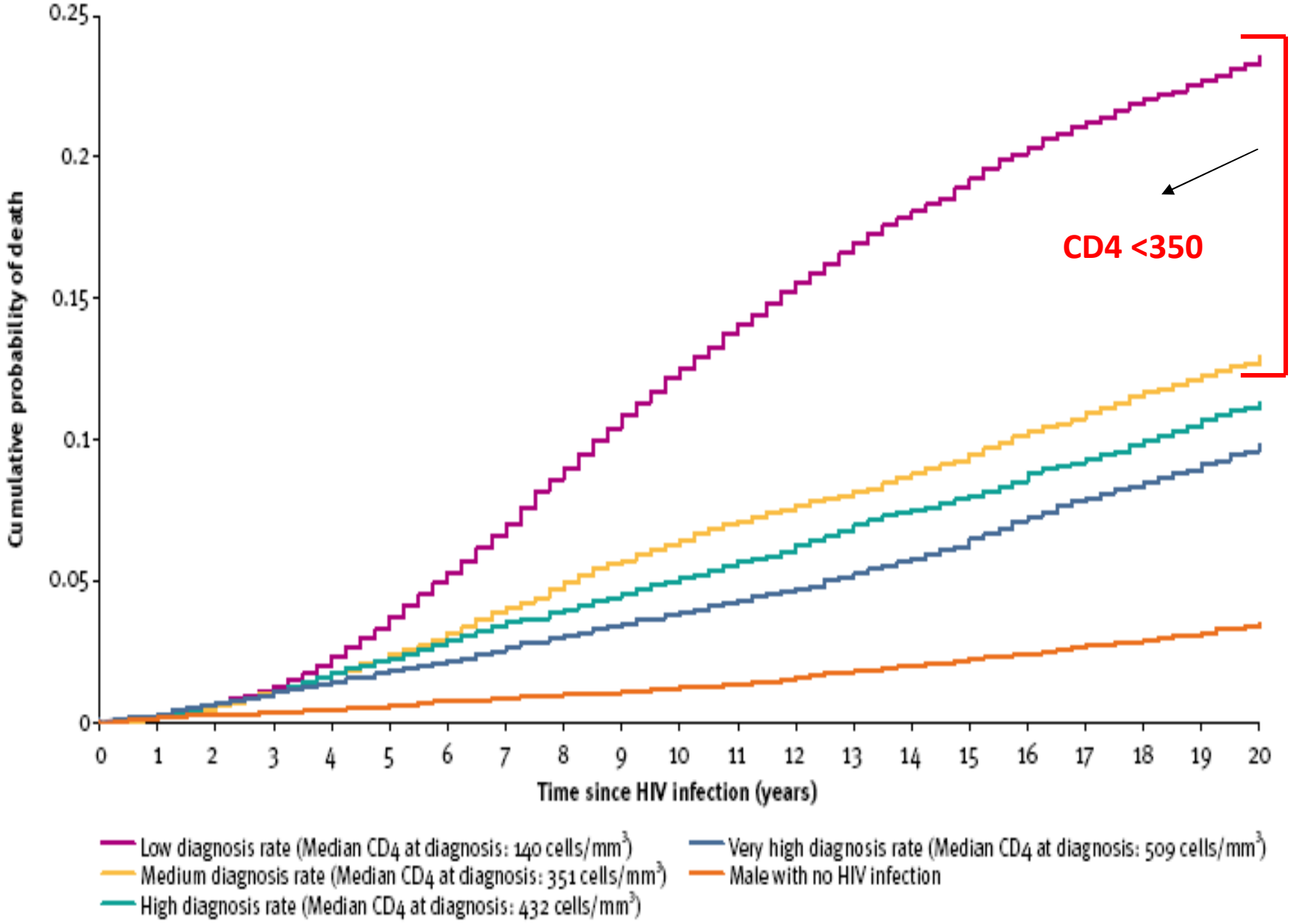


Figura 17 - Uso di terapie antiretrovirali pre-AIDS, per modalità di trasmissione (2015-2016)

ISS – COA 2017

Figure 1: Projected life expectancy of people with HIV according to timing of diagnosis [8]

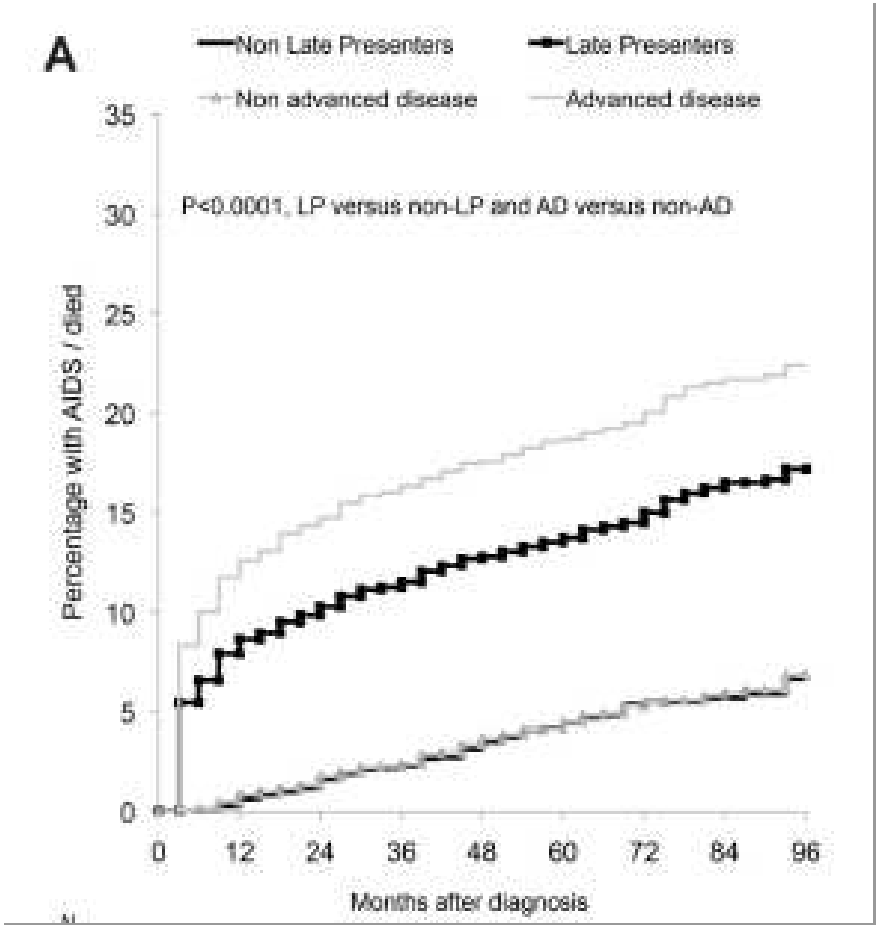
Lancet 2013



Risk Factors and Outcomes for Late Presentation for HIV-Positive Persons in Europe: Results from the Collaboration of Observational HIV Epidemiological Research Europe Study (COHERE)

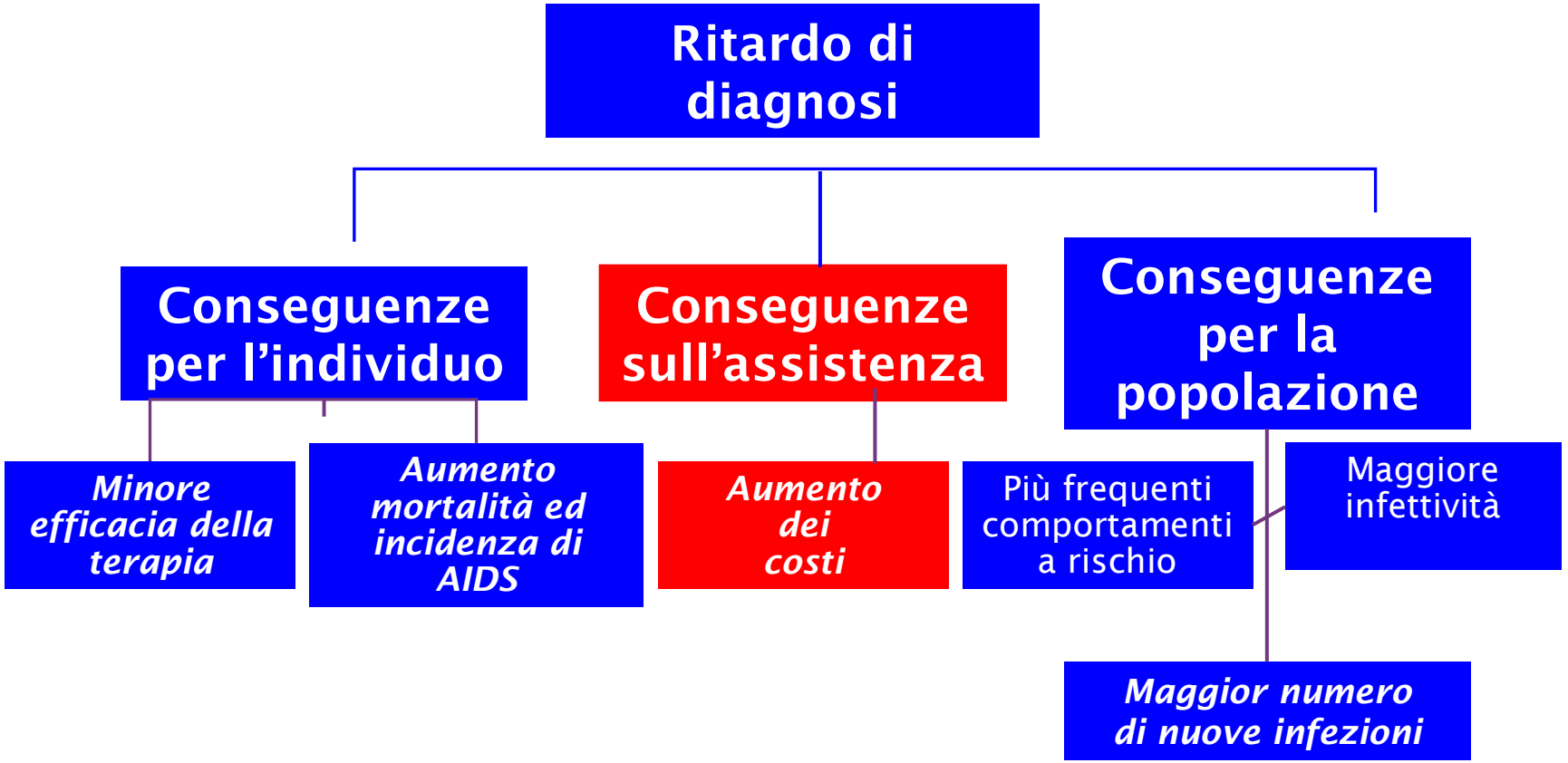
September 2013 | Volume 10 | Issue 9 |

PLOS Medicine | www.plosmedicine.org



Maggiore rischio di progressione ad AIDS e morte nei primi 2 anni dalla diagnosi

Conseguenze del ritardo di diagnosi



Late presentation increases risk and costs of non-infectious comorbidities in people with HIV: an Italian cost impact study

Giovanni Guaraldi[1*], Stefano Zona[1], Marianna Menozzi[1], Thomas D. Brothers[2], Federica Carli[1], Chiara Stentarelli[1], Giovanni Dolci[1], Antonella Santoro[1], Ana Rita Domingues Da Silva[4], Elisa Rossi[5], Julian Falutz[3] and Cristina Mussini[1]

AIDS Res Ther (2017) 14:8

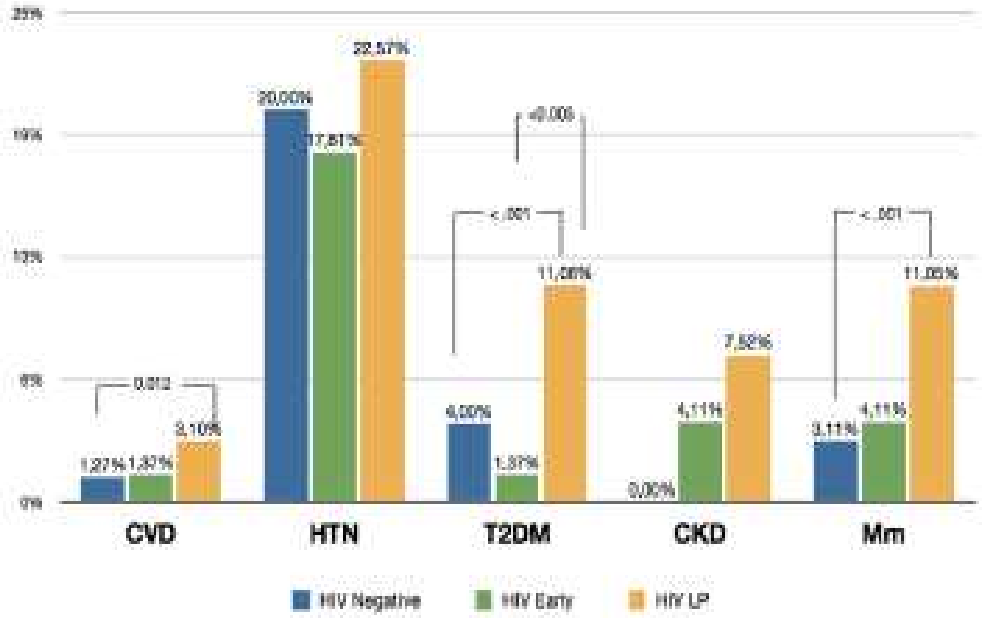


Fig. 1 NICM and MM prevalence distribution across study groups

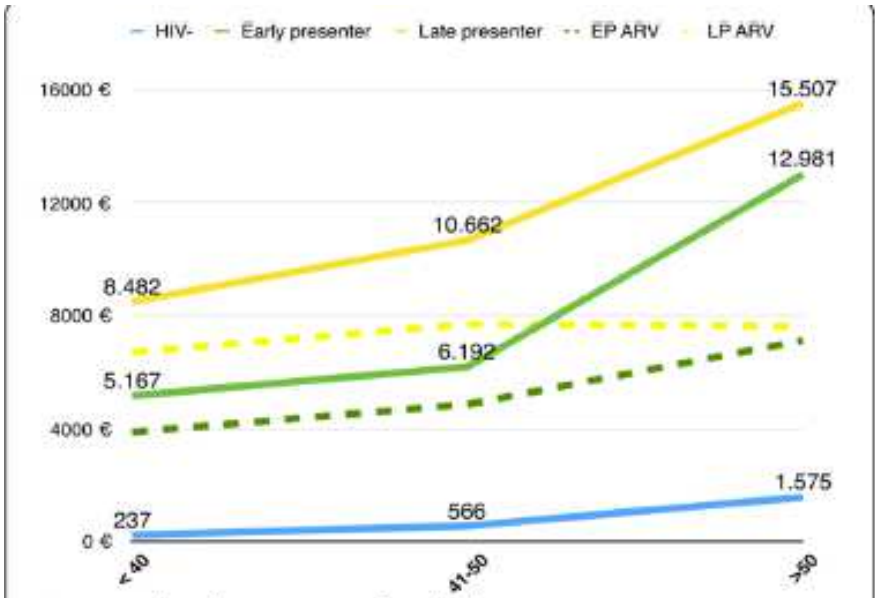
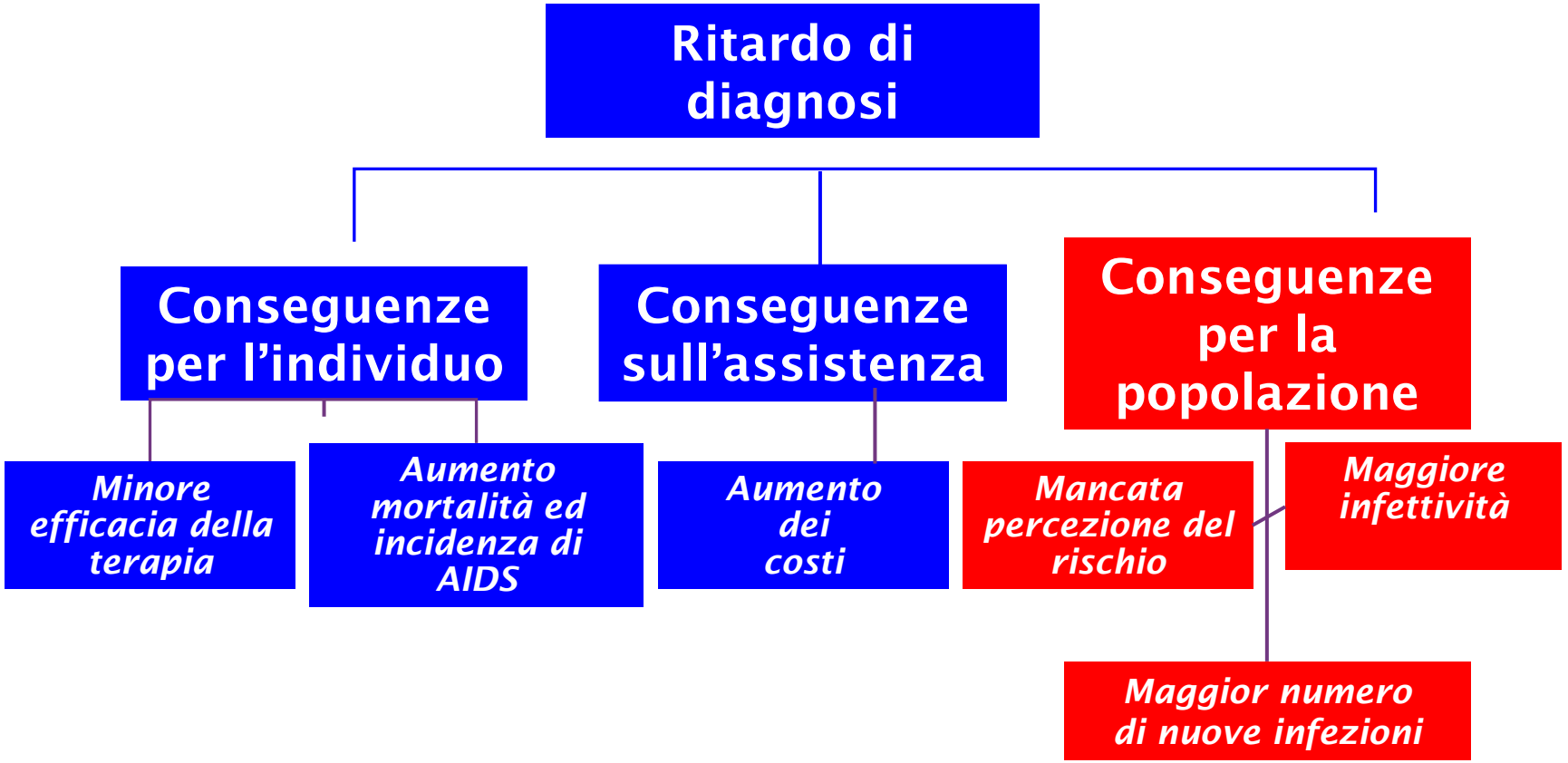
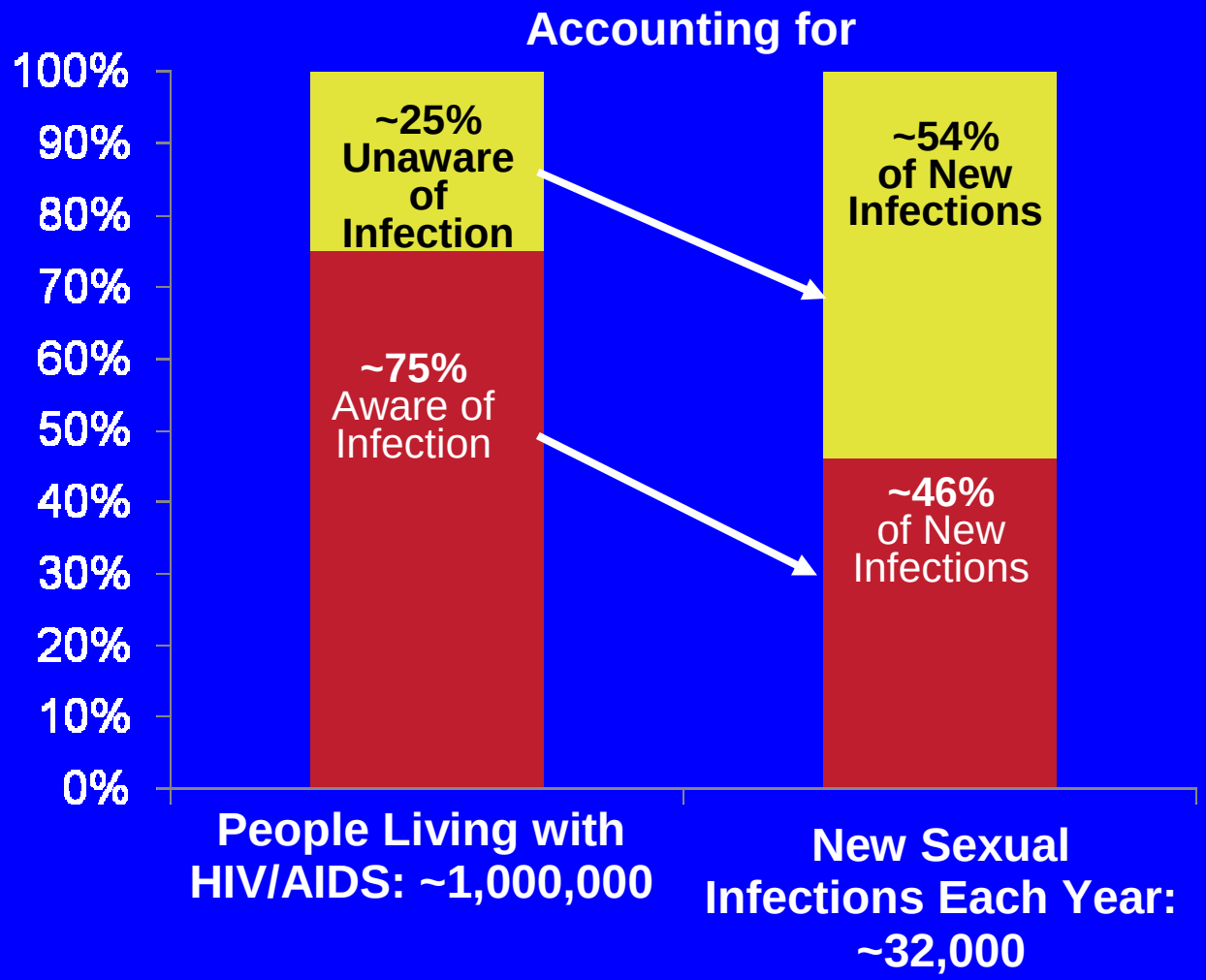


Fig. 4 Total and cART costs of medical care in HIV negative, HIV + EP and HIV + LP across age strata (mean)

Conseguenze del ritardo di diagnosi



Awareness of Serostatus Among People With HIV and Estimates of Transmission



Marks G et al. *AIDS.* 2006;20(10):1447-1450.

Fattori favorenti il ritardo di diagnosi

Paziente

- Scarsa percezione del rischio
- Negazione
- Paura dello stigma e della discriminazione
- Difficoltà ad accedere ai servizi

Medico

- Scarsa percezione del rischio
- Difficoltà nel rapporto medico-paziente (tempo, consenso)
- Reticenza ad affrontare tematiche comportamentali

Ritardo di diagnosi
Come intervenire ?

Far emergere il sommerso

- **Migliorare informazione**
- **Migliorare le strategie prevenzione**

- **Aumentare l'offerta del test HIV**

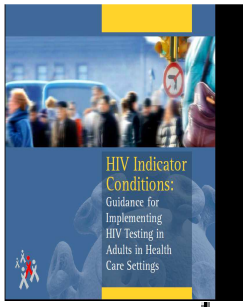
Test HIV

Favorire attivamente l'accesso al test

- **Contesti sanitari: test per indicator conditions**

- **Contesti non sanitari**
- **Community based testing**

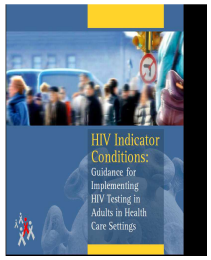
- **Self testing**



HIV in Europe

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

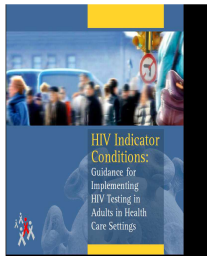


2a Strongly recommend testing
(HIV prevalence >0.1%)

HIV in Europe
Working Together for Optimal Testing and Earlier Care
Copenhagen 2012 Conference

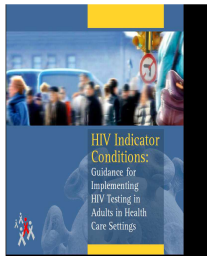
- Sexually transmitted infections (4.06%)[1]
- Lymphoma (0.29%)[1]
- Anal cancer/dysplasia (2.90%)[1]
- Cervical/anal dysplasia (0.37%)[1]
- Herpes zoster (2.89%)[1]
- Hepatitis B or C (0.36%)[1]
- Mononucleosis-like illness (3.85%)[1]
- Unexplained leucopaenia or thrombocytopaenia, >4 weeks (3.19%)[1]
- 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



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

HIV in Europe

Feasibility and Effectiveness of Indicator Condition-Guided Testing for HIV: Results from HIDES I (HIV Indicator Diseases across Europe Study)

January 2013 | Volume 8 | Issue 1 | e52845

PLOS ONE

- Sexually transmitted infections (STI)
- Malignant lymphoma, irrespective of type (LYM)
- Cervical or anal cancer/dysplasia (CAN)
- Herpes zoster (HZV)
- Hepatitis B or C virus infection, acute or chronic, and irrespective of time of diagnosis relative to survey (HEP)
- Ongoing mononucleosis-like illness (MON)
- Unexplained leukocytopenia/thrombocytopenia lasting >4 weeks (CYT)
- Seborrheic dermatitis/exanthema (SEB)

19 centri in 14 paesi europei

3588 soggetti - 66 positivi (1,8%)

Confermata per tutti gli indicatori prevalenza HIV > 0,1%

HIV in Europe

Feasibility and Effectiveness of Indicator Condition-Guided Testing for HIV: Results from HIDES I (HIV Indicator Diseases across Europe Study)

January 2013 | Volume 8 | Issue 1 | e52845

PLOS ONE

Nei 5 anni precedenti :

54% almeno 1 visita in un centro MST

19,7% ha avuto sintomi HIV correlati

10% è stato ricoverato in ospedale con sintomi HIV correlati

Mediana CD4 400/mmc (11-675)

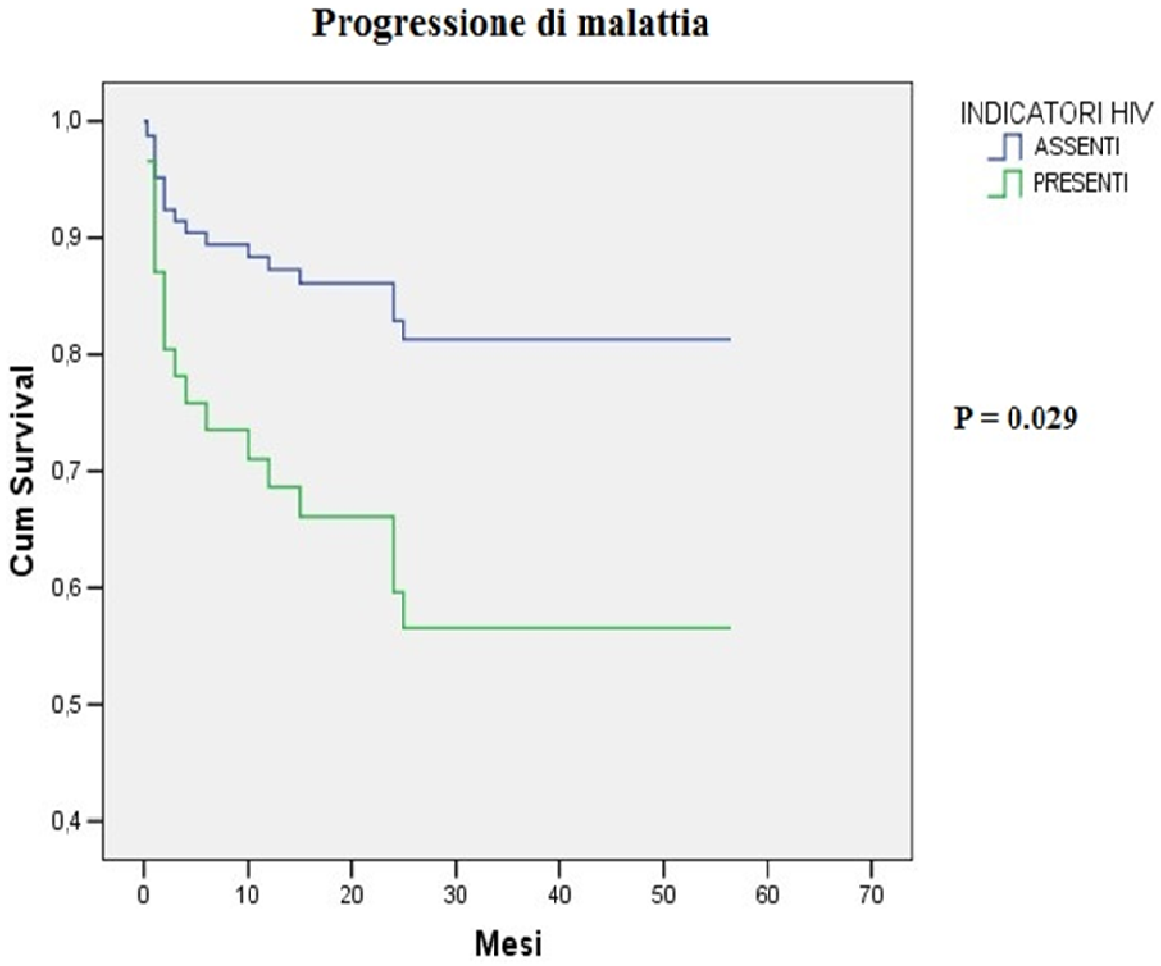
Late presenters and HIV indicator disease (*V.Guardigni Curr HIV Res 2016*)

	HR
Sesso (F)	0,25
AIDS p.	4,47
Hb diagnosi (per g/dl)	0,68
HIV indicator disease	4,46
Ab anti HCV +	6,10

Indicatori di malattia	n. Pazienti (17)
Polmonite acquisita in comunità	3
Epatite B	2
Epatite C	2
Herpes Zoster	2
Diarrea cronica	1
Sifilide	1
Dermatite seborroica	1
Febbre di ndd	1
Ulcere orali da HSV	1
Leuco-piastrinopenia	1
Linfoadenopatia	1
Meningite virale	1

Late presenters e progressione di malattia

(V.Guardigni Curr HIV Res 2016)



The late-presenting HIV-infected patient 30 years after the introduction of HIV testing: spectrum of opportunistic diseases and missed opportunities for early diagnosis

D Tominski,[1,*]

HIV Medicine (2017), **18**, 125–132

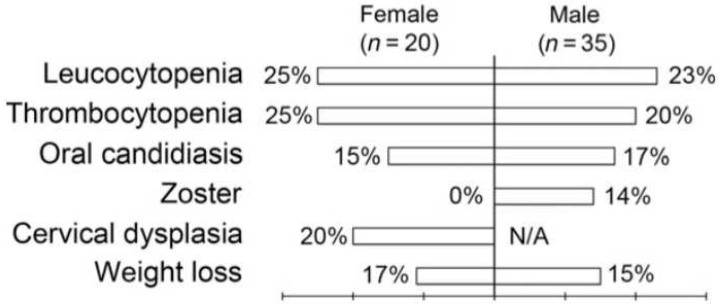


Fig. 2 Most frequent Indicator-conditions stratified by sex.

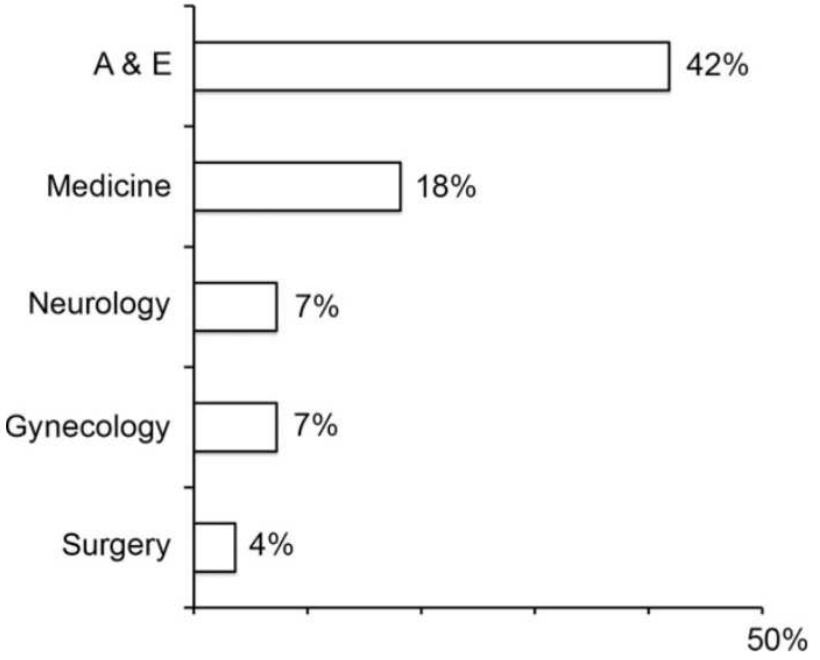


Fig. 3 Departments where indicator- conditions were documented but no HIV testing recommended.

HIV testing in persons diagnosed with hepatitis B and C

G Ireland, D Ogaz, P Kirwan, S Mandal, V Delpech, N Connor and R Simmons
National Infection Service, Public Health England, London, UK

HIV Medicine (2018), 19, e54–e55

		All hepatitis positive (*n*)	HIV tested on the same day [*n* (%)]	HIV tested within 6 months [*n* (%)]*	No HIV test within 6 months [*n* (%)]
HBV†	All	16 086	5593 (34.8)	1722 (10.7)	8771 (54.5)
	Speciality				
	Primary care‡	6016	1600 (26.6)	1126 (18.7)	3290 (54.7)
	Sexual health	3284	1791 (54.5)	97 (3.0)	1396 (42.5)
	Secondary care	6746	2190 (32.5)	497 (7.4)	4059 (60.2)
HCV	All	32 114	12 429 (38.7)	2158 (6.7)	17 527 (54.6)
	Speciality				
	Primary care‡	18 287	6172 (33.8)	1282 (7.0)	10 833 (59.2)
	Sexual health	3279	1673 (51.0)	98 (3.0)	1508 (46.0)
	Secondary care	10 123	4378 (43.2)	752 (7.4)	4993 (49.3)

Hospital-based routine HIV testing in high-income countries: a systematic literature review

A Elgalib,[1] S Fidler[2] and K Sabapathy[3]

HIV Medicine (2018), **19**, 195–205

Discussion

Routine HIV testing has already been shown to be feasible, acceptable by both patients and staff, effective in identifying new HIV cases and cost-effective [37,40–43].

Despite this, studies have shown that routine HIV testing in nonspecialist settings remains low [20,44].

Test HIV

Favorire attivamente l'accesso al test

- **Contesti sanitari: test per indicator conditions**

- **Contesti non sanitari**
- **Community based testing**

- **Self testing**

Regione Emilia-Romagna

SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA
Azienda Ospedaliero - Universitaria di Ferrara

università di ferrara
DA SEICENTO ANNI GUARDIAMO AVANTI.

Offerta attiva del test HIV in gruppi di popolazione ad elevato rischio di infezione

Strutture a bassa soglia : rivolte ad adulti in condizioni di difficoltà (TD, immigrati, homeless)

Parma, Reggio Emilia, Bologna

Rifugiati e richiedenti asilo : Ferrara

Donne sottoposte a tratta: Ferrara

HIV rapid testing in community sites: results of a multicenter study in Italy

- Community sites (13)
- Migrants services (6)
- Drug users services (5)

INMI "L. Spallanzani" IRCCS

Consulta delle Associazioni per la lotta contro l'AIDS del Ministero della Salute

Ospedale San Raffaele

LILA Milano ONLUS · Caritas Italiana · Anlaids · mariomieli · ARCIGAY

Scognamiglio P et al
ICAR 2014

Offerta test HIV in contesti non sanitari

BLQCHECKPOINT

- **Bologna, Via San Carlo 2**
- **Gestito da PLUS Onlus e AUSL Bologna**
- **Punto test HIV e HCV.**

Test HIV

Favorire attivamente l'accesso al test

- **Contesti sanitari: test per indicator conditions**

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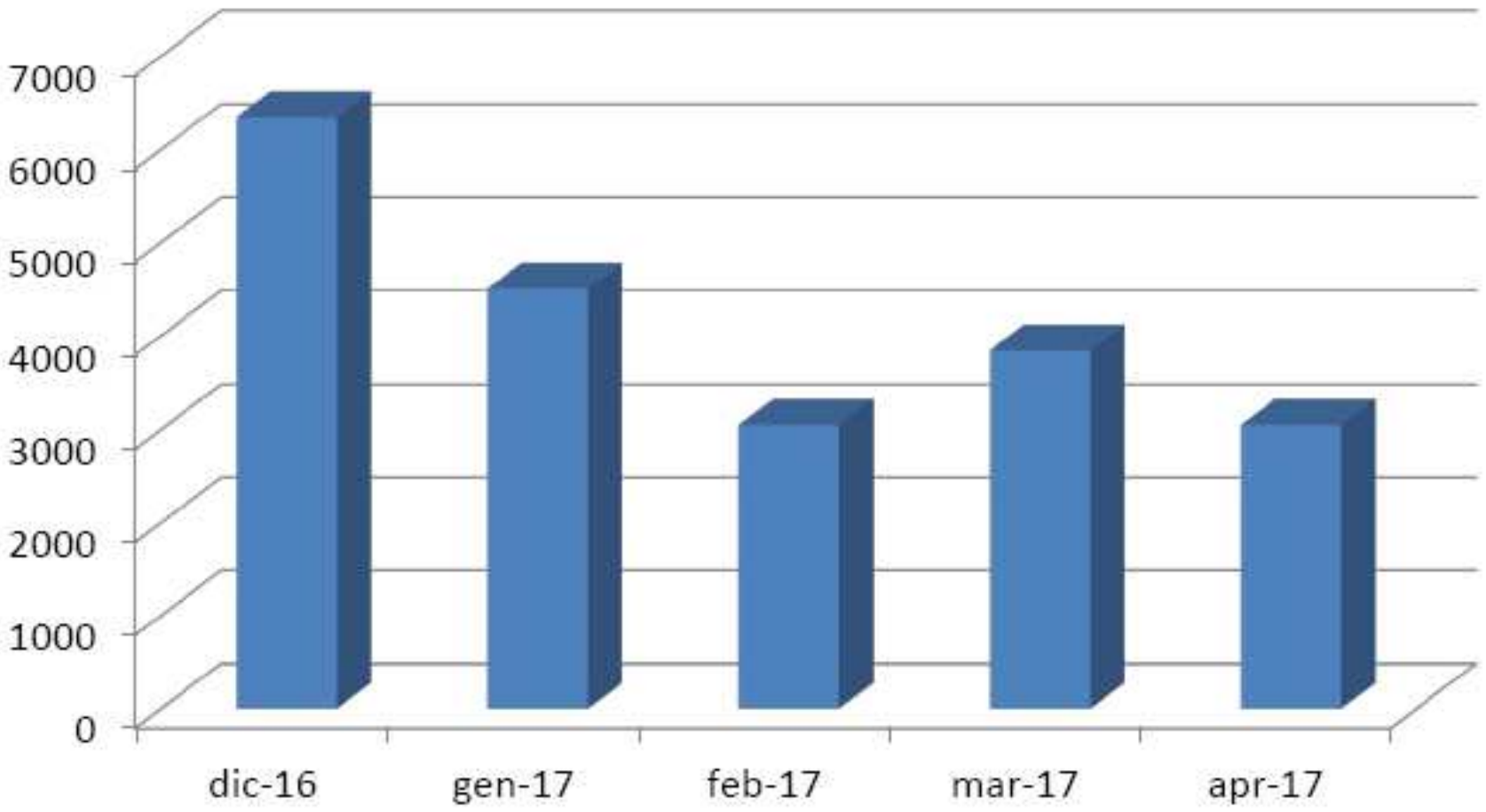
- **Self testing**

HIV self test Kit sold in Italy



E.Girardi., Parma 2018

Knowledge, actual and potential use of HIV self-sampling testing kits among MSM recruited in eight European countries.

J Hoyos,[1]
HIV Medicine (2018), 19 (Suppl. 1), 27–33

	Belgium (*N* = 125) (%)	Denmark (*N* = 397) (%)	Germany (*N* = 1638) (%)	Greece (*N* = 795) (%)	Portugal (*N* = 755) (%)	Romania (*N* = 702) (%)	Slovenia (*N* = 242) (%)	Spain (*N* = 3572) (%)	Total (weighed) (*N* = 8226) (%)	*P*
Knows about the existence of self-sampling	47.2	23.2	27.4	23.2	23.0	24.6	29.7	18.8	25.5	<0.001
Has used a self-sampling kit in the past	8.9	0.5	0.7	0.3	1.3	1.3	0.4	0.4	1.1	<0.001
Would have used a self-sampling kit if available in their country										
Yes/probably yes	68.1	68.8	63.6	65.4	76.5	82.1	73.8	62.1	66.6	<0.001
Not sure	18.6	15.5	19.5	20.2	12.0	10.0	17.2	16.6	17.2	
No probably not	13.3	15.7	16.9	14.4	11.5	7.9	9.0	21.3	16.2	
Would prefer to use a blood based kit†	59.8	79.8	79.0	79.4	81.9	82.3	77.0	79.7	78.6	<0.001
Preferred option for result communication†										
Non-face-to-face options	79.6	74.4	66.5	59.1	79.9	69.9	79.4	76.2	70.8	<0.001
Email	32.0	19.8	25.6	22.4	40.0	27.8	26.0	36.7	29.4	
Secure web site	21.4	18.2	23.9	6.7	18.8	12.6	25.5	18.9	19.8	
SMS	18.4	20.8	10.4	15.9	18.3	21.0	21.1	14.8	14.5	
Telephone call	7.8	15.6	6.6	14.1	2.8	8.6	6.9	5.7	7.2	
Face-to-face options	18.4	24.7	30.2	39.8	19.6	28.0	19.1	22.2	26.9	
Clinical setting	16.5	16.6	23.4	26.8	12.1	25.2	12.3	19.9	21.5	
NGO/CBO center*	1.9	8.1	6.7	12.9	7.5	2.8	6.9	2.3	5.3	
OTHER	1.9	1.0	3.3	1.1	0.5	2.1	1.5	1.6	2.3	
Would still prefer non-face-to-face methods when receiving a reactive result††	69.9	78.3	74.1	66.1	72.3	75.4	70.4	67.4	71.8	<0.001

TEST

AND

TREAT