

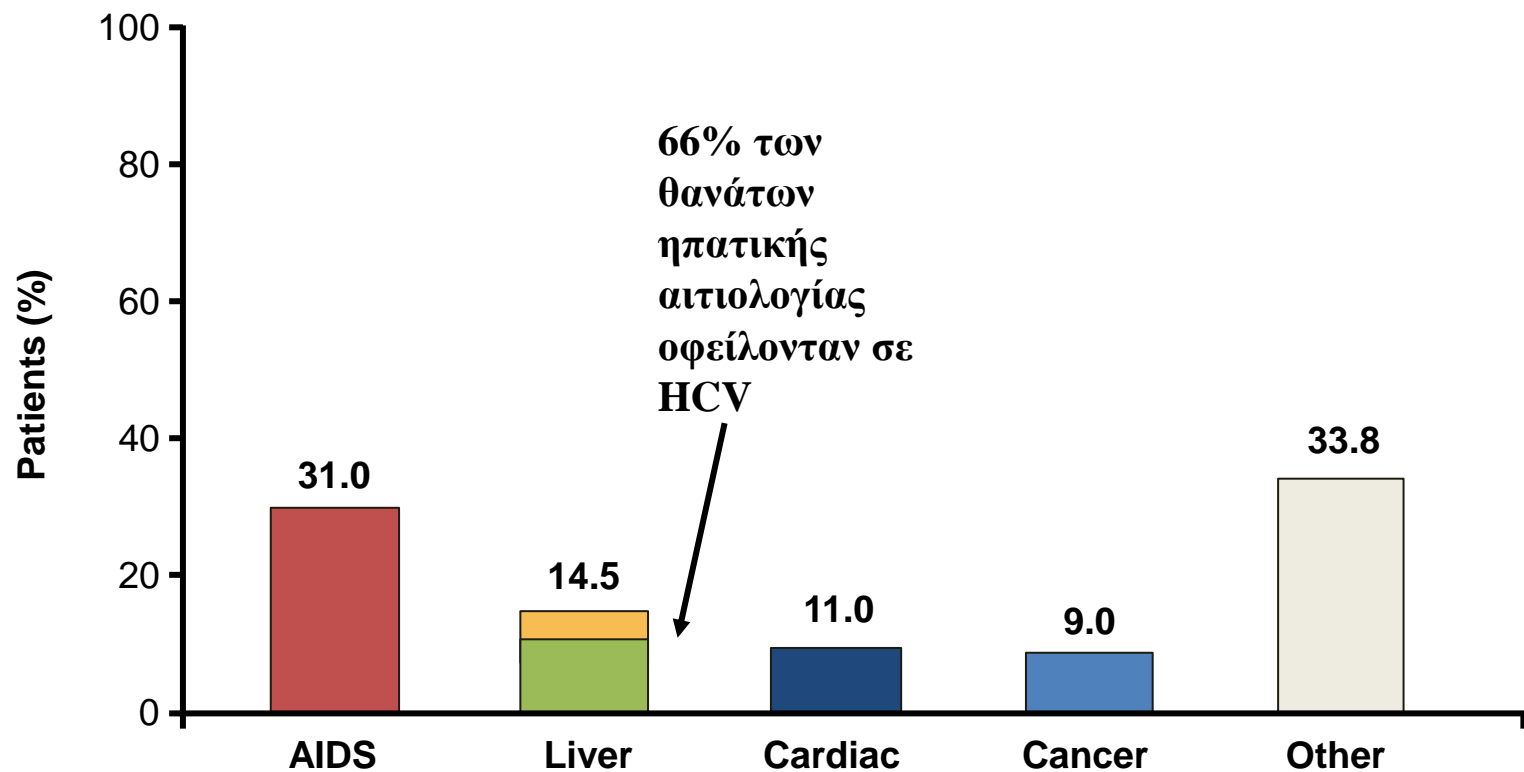
Νέος ασθενής με HIV λοίμωξη: τι να κάνω?



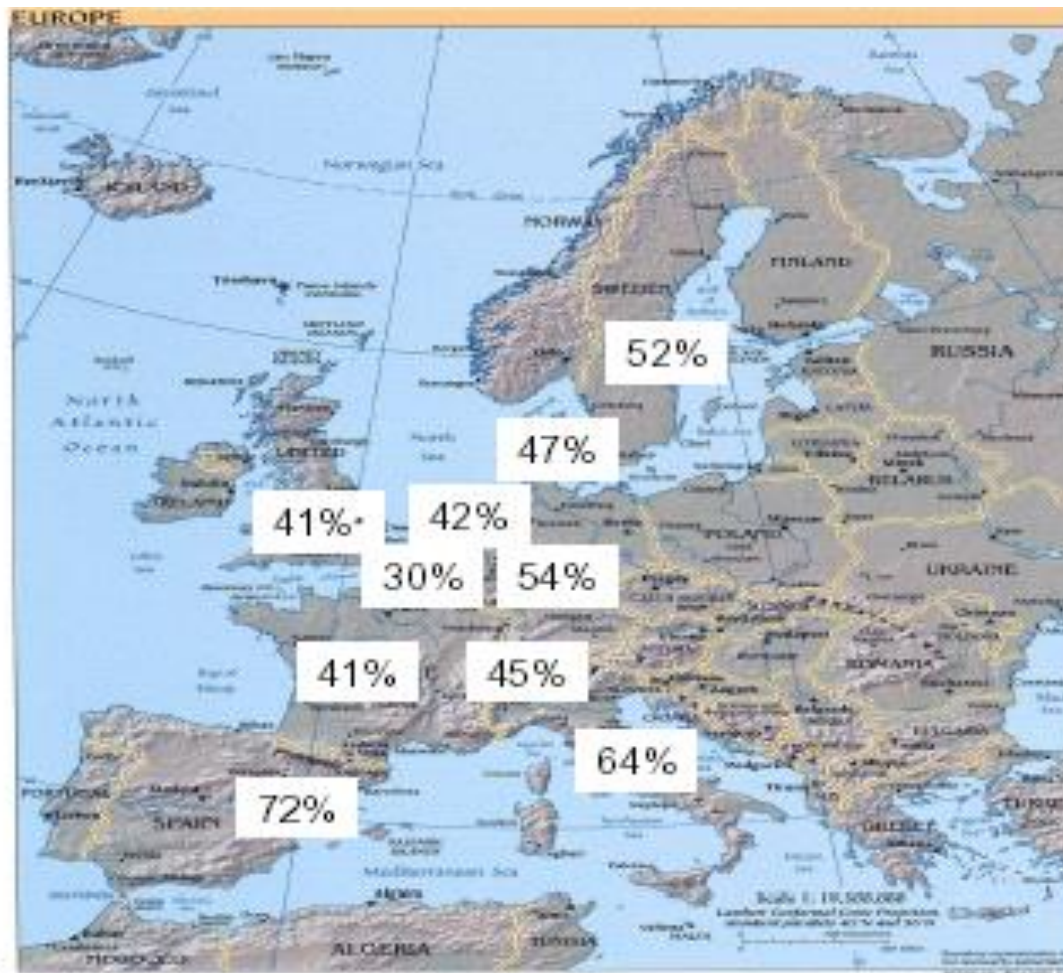
Σαμπατάκου Ελένη
Αν. Καθηγήτρια Παθ/γίας Λοιμώξεων
Β Παν/κή Παθολογική
Πανεπιστήμιο ,



Αιτία θανάτου σε 1246 HIV(+) ασθενείς D:A:D Study (N = 23,441)



Ποσοστά "late presenters" προσερχόμενοι σε Κέντρα το 2008

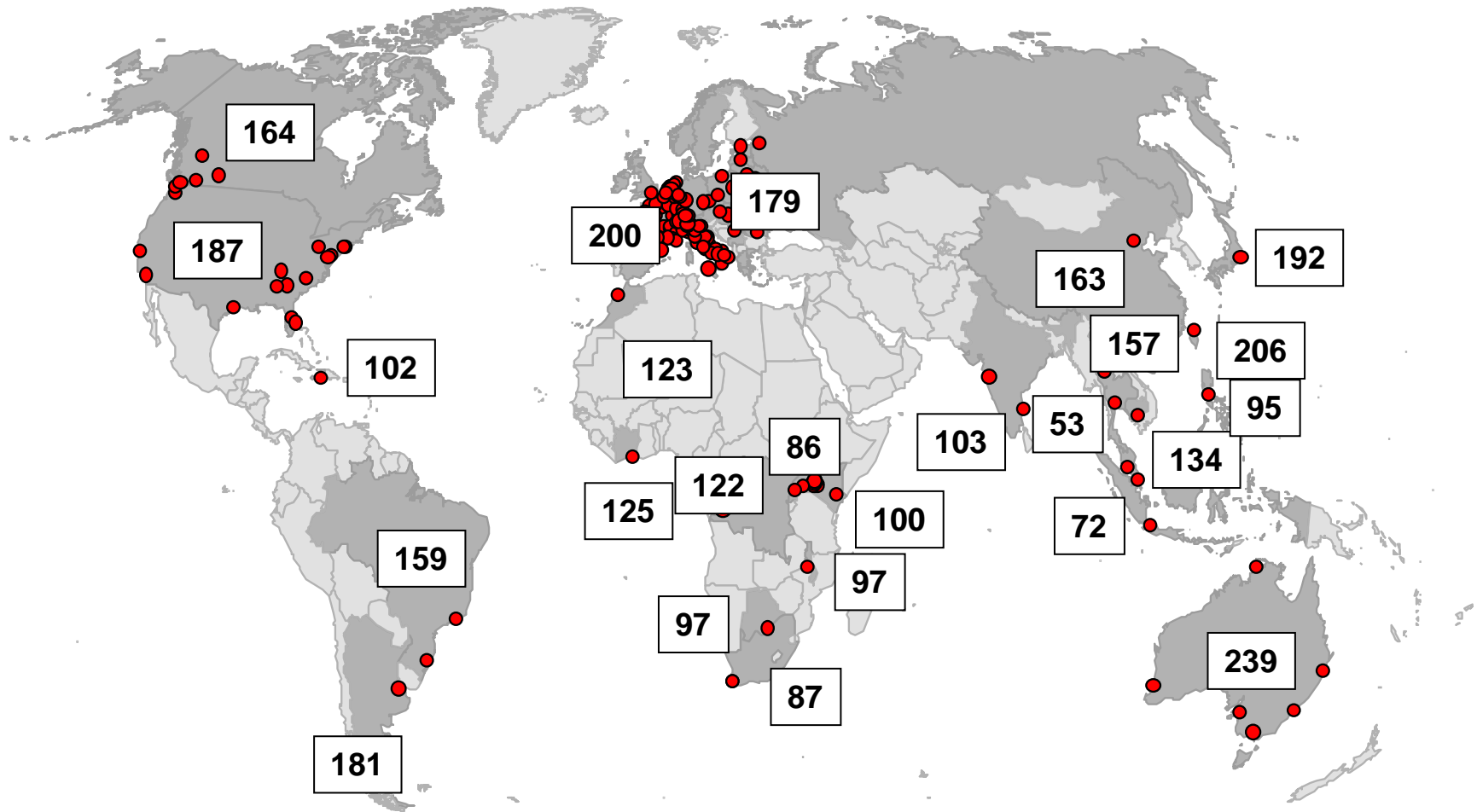


Thanks to:

ATHENA (F de Wolf)
Brussels St Pierre Cohort (S deWit)
Barcelona cohort (J Gatell)
CHIC (C Sabin)
ClinSurv HIV (O Hamouda)
DHCS (F Engsig)
EuroSIDA (J Reekie)
FHDH ANRS CO4 (D Costagliola)
ICONA (A d'Arminio Monforte)
Swedish Cohort (J Brännström)
SHCS (B Ledergerber)

CD4 count at start of ART, 2003-2005

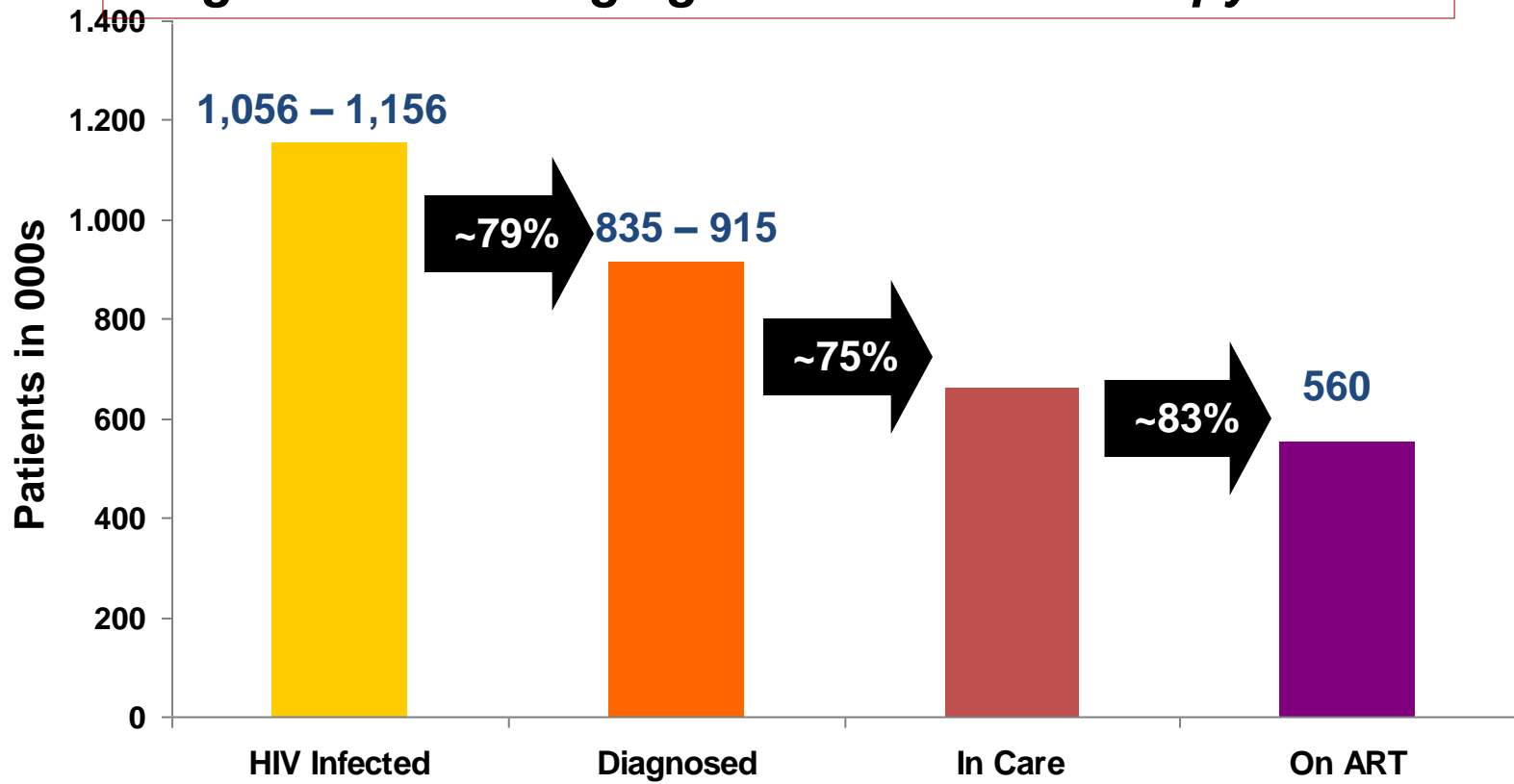
42 countries, 176 sites, 33,008 patients



Numbers are median CD4 counts

U.S. HIV Market Dynamics

Significant Opportunity Remains in Increasing Diagnosis and Bringing Patients onto Therapy



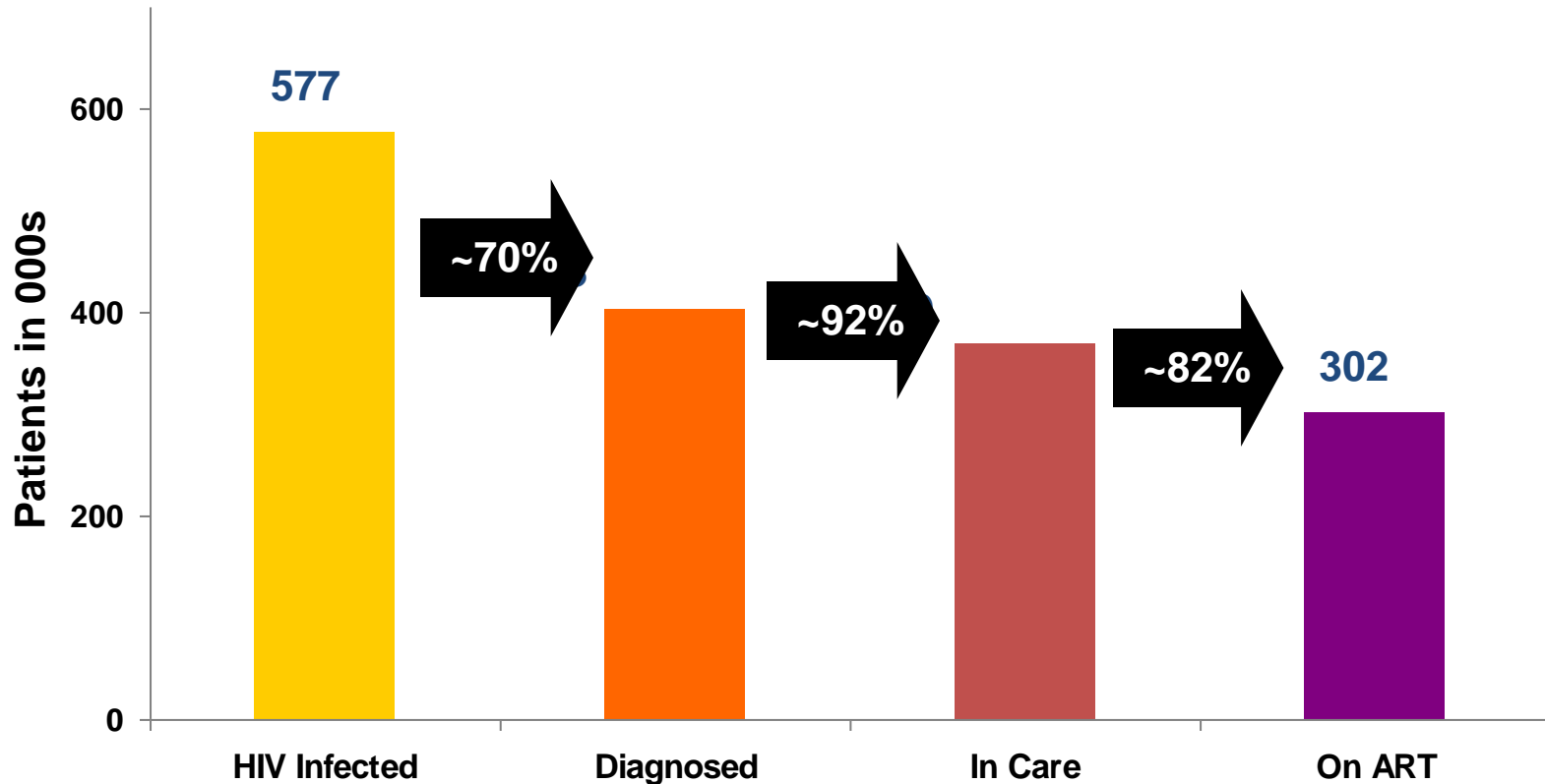
Sources:

* February, 2009 CDC estimates as of the end of 2006

** Synovate Healthcare U.S. HIV Monitor Q3 2008

EU Big 5 HIV Market Dynamics

Similar Dynamics as Seen in the U.S. with Strong Support in the EU for Increased Testing Initiatives and Early Treatment



Sources:

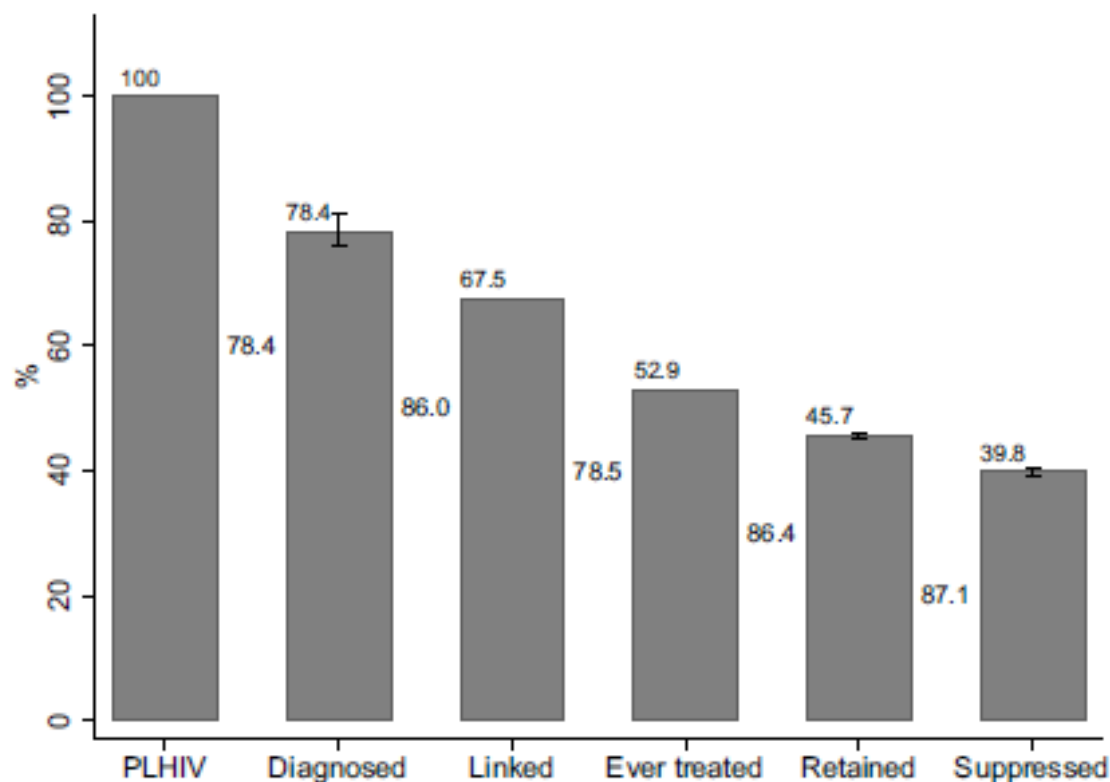
* National Surveillance Units per country & ECDC

** IMS/GERS & Synovate Q3 2008

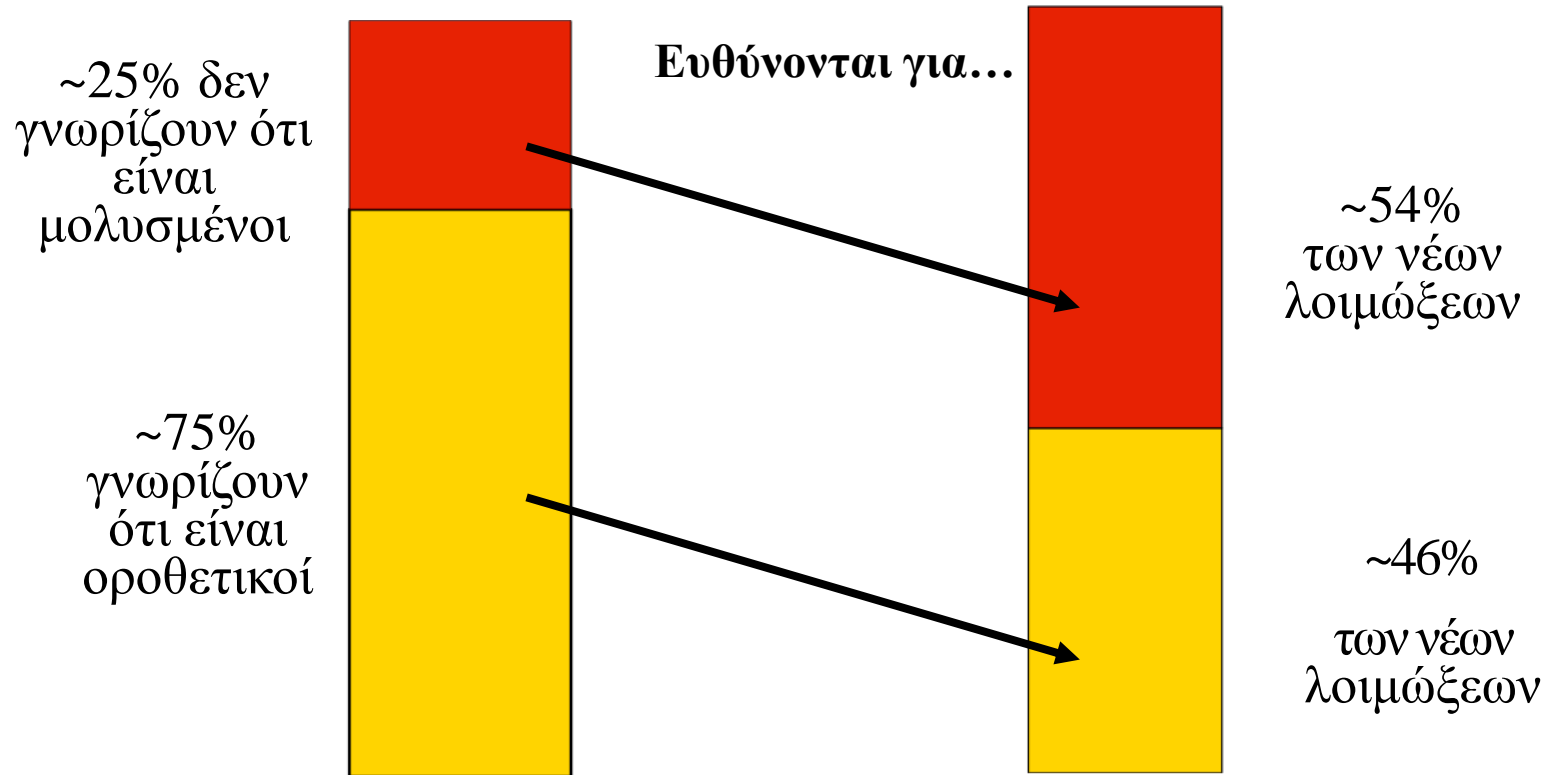
RESEARCH ARTICLE

HIV cascade of care in Greece: Useful insights from additional stages

Georgia Vourli^{1*}, Georgios Nikolopoulos², Vasilios Pappas³, Athanasios Skoutelis⁴,
 Simeon Metallidis⁵, Panagiotis Gerasimidis⁶, Antonios Papadopoulos⁷, Maria Chini⁸,
 Ioanna Katsi⁹, Georgios Chrysos¹⁰, Helen Sambatakou¹¹,
 Dimitra Paraskeva¹², Nikos Dedes¹³,
 the Greek HIV Prevention Group¹⁴



Οι περισσότερες νέες λοιμώξεις μεταδίδονται από άτομα που δεν γνωρίζουν την οροθετικότητά τους



CDC Recommendations for HIV Testing in Healthcare Settings

Routine voluntary testing for patients ages 13 to 64 y
Not based on patient risk

Opt-out testing

No separate consent for HIV

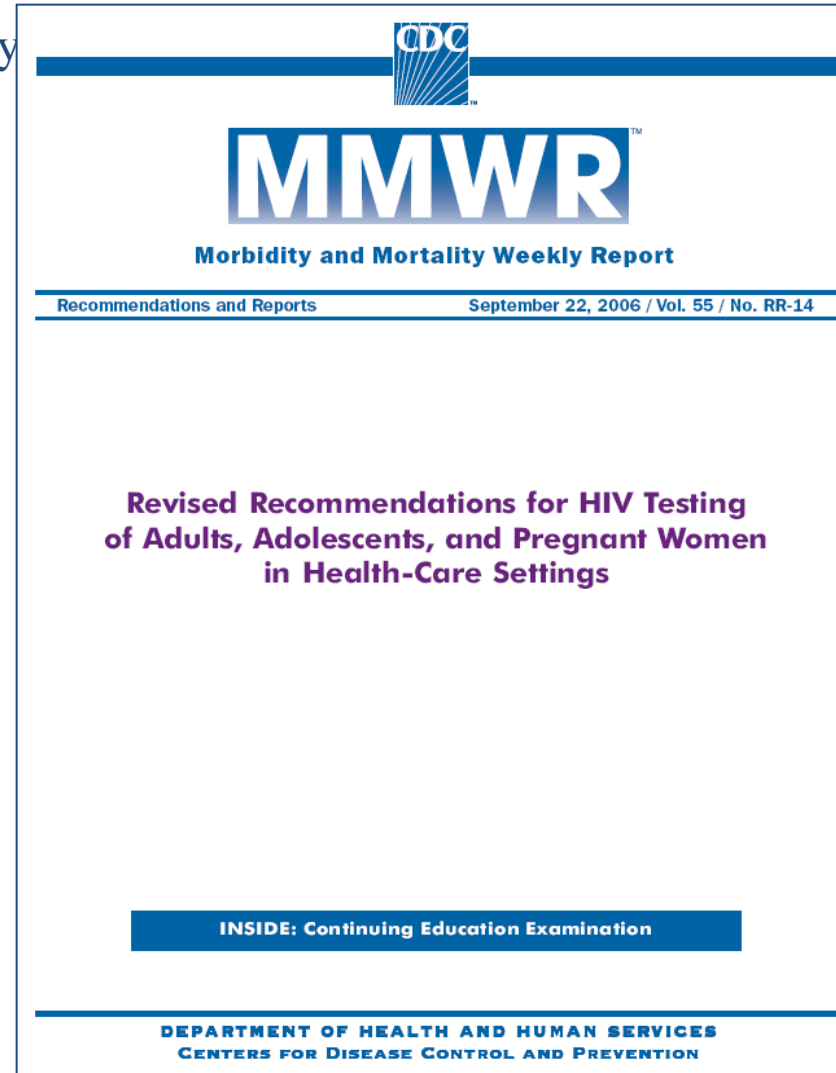
Resulting in increases in HIV testing rates

Pretest counseling not required

Repeat HIV testing left to discretion
of provider, based on risk

Within the US, 34 states are neutral
to supportive of the CDC guidelines
while 11 states have taken steps
to reduce regulatory barriers
6 states passed legislation (2007)

*Branson BM, et al. MMWR Recomm Rep.
2006;55(RR-14):1-17.*





HIV in Europe

Working Together for Optimal
Testing and Earlier Care

HepHIV 2014
5-7 OCTOBER BARCELONA

HIV and Viral Hepatitis: Challenges of Timely Testing and Care

Which Conditions are Indicators for HIV testing across Europe?: Results from the HIDES II Study

Dr. Galyna Kutsyna on behalf of the HIDES Study Group

HIDES (HIV Indicator Diseases Across Europe Study)
A project under the HIV in Europe initiative





Age is Not a Condom



Have Sex?

Age is not a condom.

Talk to your doctor about your sex life.
Get informed. Be safe. Get tested for HIV.

NYS 800-541-AIDS NYC 800-TALK-HIV
800-541-2437 800-825-5448

NYCDOH NEW YORK STATE DEPARTMENT OF HEALTH www.doh.org



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Αρχική εκτίμηση πρωτοδιαγνωσθέντος HIV(+) ασθενούς

Πλήρες ιατρικό ιστορικό

Οικογενειακό ιστορικό (πρώιμη CVD, ΣΔ, υπέρταση, ΧΝΝ)

Χρόνια φαρμακευτική αγωγή

Συννοσηρότητες

Ιστορικό εμβολιασμών

Ψυχοκοινωνική εκτίμηση

Τρέχον “ lifestyle” (χρήση αλκοόλ, κάπνισμα, διατροφή, άσκηση, χρήση φαρμάκων)

Εργασία, κοινωνικό status

Υπαρξη νευρογνωσιακών διαταραχών, κατάθλιψη

οικογενειακό status: σύντροφος, παιδιά

Σεξουαλική και αναπαραγωγική υγεία

Στυτική δυσλειτουργία, σεξουαλική συμπεριφορά υψηλού κινδύνου

Status συντρόφου και ενημέρωση , μέτρα αντισύλληψης

Εκτίμηση HIV-ασθενών στην αρχική και επόμενες επισκέψεις

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment	See page
HISTORY						
Medical	Complete medical history including:	+	+	First visit	On transfer of care repeat assessment	
	• Family history (e.g. premature CVD, diabetes, hypertension, CKD)	+		First visit	Premature CVD: cardiovascular events in a first degree relative (male < 55, female < 65 years)	54, 55-56
	• Concomitant medicines ⁽ⁱ⁾	+	+	Every visit		
	• Past and current co-morbidities	+	+	Every visit		
	• Vaccination history	+		Annual	Measure antibody titres and offer vaccinations where indicated, see Vaccination	
Psychosocial	Current lifestyle (alcohol use, smoking, diet, exercise, drug use)	+	+	6-12 months	Adverse lifestyle habits should be addressed more frequently	53
	Employment	+	+	Every visit	Provide advice and support if needed	
	Social and welfare	+	+		Provide counselling if needed	
	Psychological morbidity	+	+			
	Partner and children	+			Test partner and children if at risk	
Sexual and Reproductive Health	Sexual history	+		6-12 months	Address issues concerning sexual dysfunction	80-83
	Safe sex	+			Risk of sexual transmission should be addressed	
	Partner status and disclosure	+			Recommend starting ART in serodifferent couples	
	Conception issues	+	+			
	Hypogonadism (including menopause)	+	+	As indicated	Persons with complaints of sexual dysfunction	80, 82
POST-REPRODUCTIVE HEALTH						
Menopause		+	+	Annual/as indicated	Screen for perimenopause symptoms in women ≥ 40 years.	80

Εργαστηριακός έλεγχος σχετικός με την HIV λοίμωξη

HIV-VL

Γονοτυπική αντοχή και υπότυπος

R5 τροπισμός

Απόλυτος αριθμός CD4 (%), CD4/CD8

HLA-B*5701 (Screening πριν την έναρξη ABC)

Έλεγχος για συλλοιμώξεις (HBV, HCV, HAV, STDs)

Screening για TB

Εκτίμηση κινδύνου για CVD (Framingham score)

Ηπατική, νεφρική λειτουργία, οστική πυκνότητα

Εμβολιασμοί...

Εργαστηριακός έλεγχος σχετικός με την HIV λοίμωξη

HIV DISEASE						
Virology	Confirmation of HIV Ab pos	+		3-6 months	More frequent monitoring of HIV-VL at start of ART Perform genotypic resistance test before starting ART if not previously tested or if at risk of super-infection	11-13
	Plasma HIV-VL	+	+			
	Genotypic resistance test and sub-type	+	+/-	At virological failure	Screen if considering R5 antagonist in regimen	
	R5 tropism (if available)		+/-			
Immunology	CD4 absolute count and %, CD4/CD8 ratio (optional: CD8 and %)	+	+	3-6 months	Annual CD4 count if stable on ART and CD4 count > 350 cells/ μ L ⁽ⁱⁱ⁾ CD4/CD8 ratio is a stronger predictor of serious outcomes	11-13
	HLA-B*57:01 (if available)	+	+/-		Screen before starting ABC containing ART, if not previously tested, pages 11-12, 24	
CO-INFECTIONS						
STIs	Syphilis serology	+		Annual/ as indicated	Consider more frequent screening if at risk	14, 80
	STI screen	+		Annual/ as indicated	Screen if at risk and during pregnancy	

screening για ΤΒ, ηπατίτιδες

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment	See page
Viral Hepatitis	HAV screen	+		As indicated	Screen if ongoing risk (e.g. MSM); vaccinate if non-immune	79, 95-97
	HBV screen	+	+		Annual screen if ongoing risk; vaccinate if non-immune. Use ART containing TDF or TAF in vaccine non-responders	
	HCV screen	+			Further screen based on risk behaviour and local epidemiology. Measure HCV-RNA if HCV Ab pos or if recently acquired infection suspected	
	HDV screen			As indicated	All Persons with positive HBs-Ag should also be screened for HDV co-infection	95, 103
	HEV screen			As indicated	Screen persons with symptoms consistent with acute hepatitis, unexplained flares of aminotransferases or elevated liver function tests, neuralgic amyotrophy, Guillain-Barré, encephalitis or proteinuria. Include anti-HEV IgG and IgM and NAT for HEV-RNA in blood and if possible in stool	103
Tuberculosis	CXR	+		Re-screen if exposure	Consider routine CXR in persons from high TB prevalence populations. Some national guidelines consider the ethnicity, CD4 count and ART usage to define indication for latent tuberculosis infection screening. Use of PPD/IGRA depending on availability and local standard of care. IGRA should, however, be tested before PPD if both are to be used, given the potential for a false positive IGRA after PPD. See Diagnosis and Treatment of TB in PLWH	20, 114
	PPD	+				
	IGRA in selected high-risk populations (if available)	+				

screening για άλλες συλλοιμώξεις

Others	Varicella zoster virus serology	+			Offer vaccination where indicated	79
	Measles/Rubella serology	+			Offer vaccination where indicated	
	Toxoplasmosis serology	+				
	CMV serology	+				79
	Cryptococcus antigen	+/-			Consider screening for cryptococcus antigen in serum in persons with CD4 count < 100 cells/μL	
	Leishmania serology	+/-			Screen according to travel history/origin	
	Tropical screen (e.g. Schistosoma serology)	+/-			Screen according to travel history/origin	
	Influenza virus	+		Annual	In all PLWH, see Vaccination	79
	<i>Streptococcus pneumoniae</i>	+			No recommendations available regarding the need for a booster dose, see Vaccination	79
	Human papilloma virus	+		As indicated	Vaccinate all PLWH with 3 doses between ages 9 and 40. If HPV infection is established, efficacy of vaccine is questionable, see Vaccination	79

Έλεγχος για συννοσηρότητες (1)

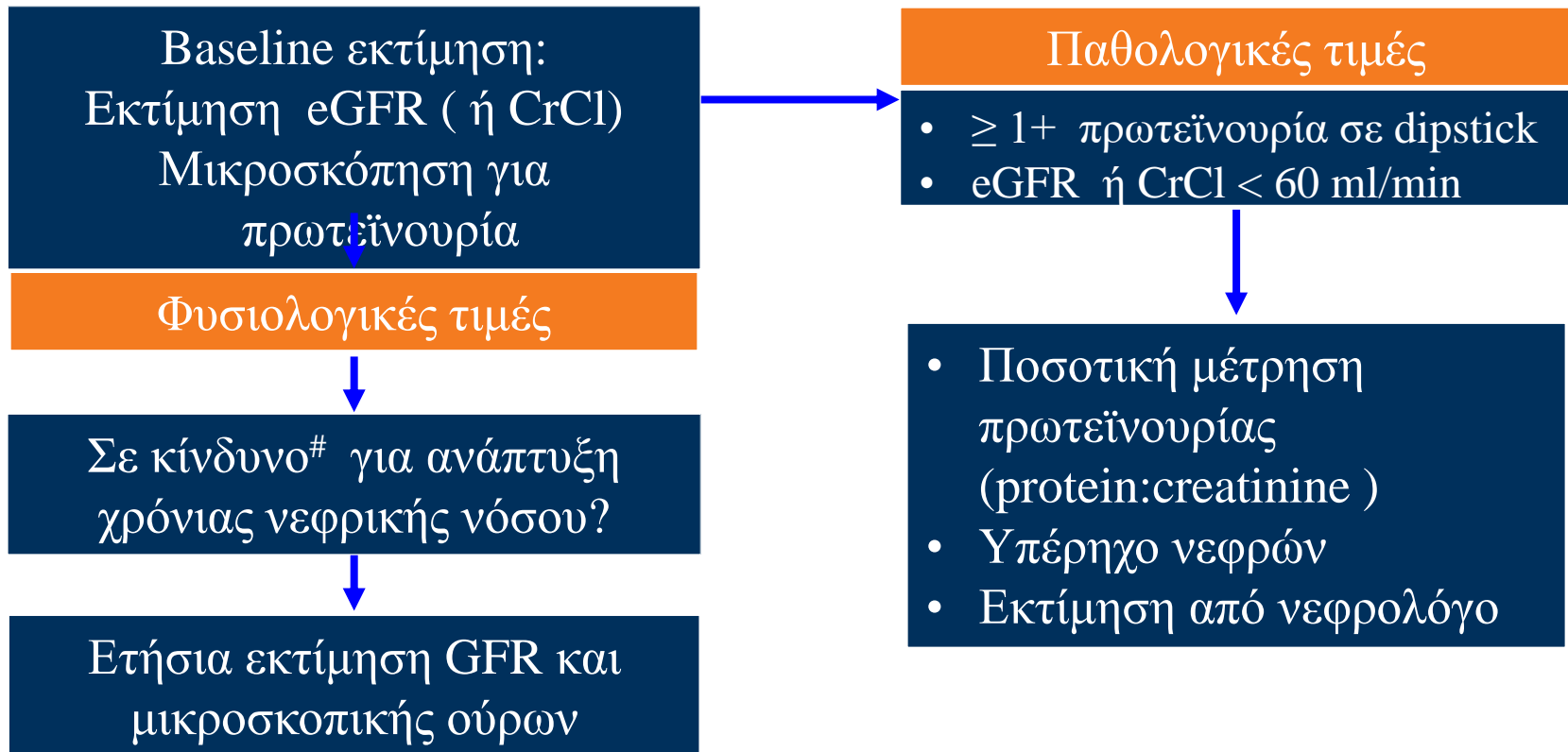
CO-MORBIDITIES

Haematology	FBC	+	+	3-12 months		
	Haemoglobinopathies	+			Screen at risk persons	
	G6PD	+			Screen at risk persons	
Body Composition	Body-mass index	+	+	Annual		53
Cardiovascular Disease	Risk assessment (Framingham score ⁽ⁱⁱⁱ⁾)	+	+	2 years	Should be performed in all men > 40 years and women > 50 years without CVD	54
	ECG	+	+/-	As indicated	Consider baseline ECG prior to starting ARVs associated with potential conduction problems	
Hypertension	Blood pressure	+	+	Annual		55-56
Lipids	TC, HDL-c, LDL-c, TG ^(iv)	+	+	Annual	Repeat in fasting state if used for medical intervention (i.e. ≥ 8h without caloric intake)	60
Glucose	Serum glucose	+	+	Annual	Consider oral glucose tolerance test / HbA1c if fasting glucose levels of 5.7-6.9 mmol/L (100-125 mg/dL)	58-59
Pulmonary Disease	Respiratory symptoms and risk factors ^(xii)	+	+	Annual	If severe shortness of breath is reported with preserved spirometry, echocardiography may be performed to rule out heart failure and/or pulmonary hypertension	89
	Spirometry			As indicated	Spirometry should be performed in all symptomatic persons ^(xii)	
Liver Disease	Risk assessment ^(v)	+	+	Annual		69-72
	ALT/AST, ALP, Bilirubin	+	+	3-12 months	More frequent monitoring prior to starting and on treatment with hepatotoxic drugs	
	Staging of liver fibrosis			12 months	In HCV and/or HBV co-infected persons (e.g. FibroScan, serum fibrosis markers)	69-72
	Hepatic ultrasound			6 months	Persons with liver cirrhosis ^(xiii)	69-72

Έλεγχος για συννοσηρότητες (2)

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment	See page
Renal Disease	Risk assessment ^(vi)	+	+	Annual	More frequent monitoring if eGFR < 90mL/min, CKD risk factors present ^(vi) and/or prior to starting and on treatment with nephrotoxic drugs ^(ix)	64-65
	eGFR (CKD-EPI) ^(vii)	+	+	3-12 months		
	Urine dipstick analysis ^(viii)	+	+	Annual		
Bone Disease	Bone profile: calcium, PO ₄ , ALP	+	+	6-12 months		61-63
	Risk assessment ^(x) (FRAX ^{®(xi)} in persons > 40 years)	+	+	2 years	Consider DXA in specific persons (see page 61 for details)	
Vitamin D	25(OH) vitamin D	+		As indicated	Screen at risk persons	62
Cognitive impairment	Screening questionnaire	+	+	As indicated	Screen all persons without highly confounding conditions. If abnormal or symptomatic, see algorithm page 88 for further assessment.	88
Depression	Questionnaire	+	+	As indicated	Screen at risk persons	84-85
Cancer	Mammography			1-3 years	Women 50-70 years	52
	Cervical PAP or liquid based cytology			1-3 years	HIV-positive women > 21 years	
	Rectal exam and anoscopy			1-3 years	MSM and persons with HPV-associated dysplasia. Evidence of benefit not known	
	Ultrasound and alpha-foe-toprotein			6 months	Controversial; persons with cirrhosis and persons with HBV co-infection at high risk of HCC ^(xiii)	
	Others				Controversial	

Screening για νεφρική νόσο σε HIV (+) ασθενείς



παράγοντες κινδύνου για ΧΝΝ: έγχρωμος, Σ.Δ., υπέρταση, HCV, CD4 counts < 200 cells/mm³, HIV RNA > 4000 copies/ml

CrCl Cutoffs for Single-Tablet Regimens

Single-Tablet Regimen	FDA Approved for Pts With CrCl, mL/min
EVG/COBI/TDF/FTC^[1]	≥ 70
EFV/TDF/FTC^[2]	≥ 50
RPV/TDF/FTC^[3]	≥ 50
DTG/ABC/3TC^[4]	≥ 50
EVG/COBI/TAF/FTC^[5]	≥ 30

Vaccination

- Vaccinate according to national guidelines for healthy population, preferably after having achieved suppressed viraemia and immune reconstitution (CD4 count > 200 cells/ μ L)
 - Consider repeating vaccinations performed at CD4 count < 200 cells/ μ L (< 14%) or unsuppressed viraemia once adequate immune reconstitution is achieved (HIV-VL undetectable and CD4 count > 200 cells/ μ L)
 - As vaccine responses may be significantly lower in PLWH (i.e. lower seroconversion rates, faster titer decline), do not use rapid schedules and consider antibody titers to assess their effectiveness if vaccinated at CD4 count < 200 cells/ μ L or unsuppressed viraemia (e.g. rabies, tick-borne encephalitis, HAV, meningococci)
 - Avoid polysaccharide vaccination
 - For background data, see <http://www.bhiva.org/vaccination-guidelines.aspx>
- For attenuated live vaccines⁽ⁱ⁾
(in addition to restrictions for general population):
 - ***Varicella, measles, mumps, rubella, yellow fever**
Contraindicated if CD4 count < 200 cells/ μ L (14%) and/or AIDS. Impaired protection after vaccination with unsuppressed viraemia
 - **Oral live typhoid**
Contraindicated if CD4 count < 200 cells/ μ L (14%): give inactivated parenteral polysaccharide vaccine. Preferred if CD4 count > 200 cells/ μ L (> 14%)

Vaccination

Infection	
Influenza Virus	Yearly
Human Papilloma Virus (HPV)	Vaccinate with 3 doses for all HIV-positive persons up to age 9 / age 40 if MSM. Use 9-valent vaccine if available.
Hepatitis B Virus (HBV)	Vaccinate if seronegative. Repeat doses until anti-HBs antibodies ≥ 10 IU/L / ≥ 100 IU/L
Hepatitis A Virus (HAV)	Vaccinate if seronegative.. Weaker immune response expected with HAV/HBV co-vaccine.
<i>Neisseria meningitidis</i>	Use conjugated vaccine (2 doses 1-2 months apart) if available. Booster every five years if exposure continues. Polysaccharide vaccine not recommended anymore

Ανταπόκριση σε εμβολιασμό έναντι HBV σε συλλοίμωξη

87% σε CD4 > 500

33% σε CD4 200-500

Σε ασθενείς με χαμηλό αριθμό CD4 (< 200/ μ L)
και HIV ιαιμία, θα πρέπει προ του εμβολιασμού
να γίνεται έναρξη ART

Σε CD4 200-500, συστήνονται 4 δόσεις εμβολίου:
Μήνας 0, 1, 2, and 6-12

Σε μη ανταπόκριση, επανάληψη με 40 μ g (διπλή δόση)

Απώλεια προστατευτικών αντισωμάτων έως 30% /έτος

Vaccination

<p><i>Streptococcus pneumoniae</i></p>	<p>One dose of conjugated(iii) 13-valent vaccine (CPV-13) for all individuals, also if pre-vaccinated with PPV-23 polysaccharide vaccine. No general recommendation for any booster dose.</p>
<p>Varicella Zoster Virus (VZV)</p>	<p>Vaccinate if seronegative</p>
<p>Yellow Fever Virus</p>	<p>Contraindicated if past or current haematological neoplasia or thymus affection (thymoma, resection/radiation). Booster q 10 years.</p>

Drug-drug Interactions between Antimalarial Drugs and ARVs

Antimalarial drugs	ATV/c	ATV/r	DRV/c	DRV/r	LPV/r	EFV	ETV	NVP	RPV	MVC	BIC	DTG	EVG/c	RAL	ABC	FTC	3TC	TAF	TDF	
First line and second line drugs	amodiaquine	↔	↑	↔	↑	↑ ^c	↓?	↓29% ^c	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	
	artemisinin	↑	↑	↑	↑	↓=50%	↓D	↓D	D	D	D	↔	↑	↔	↔	↔	↔	↔	↔	
	atovaquone	↔	↓46% ^a	↔	↓ ^a	↓74% ^a	↓75% ^a	↓E55% ^a	↓ ^a	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	chloroquine	↔ ^b	↔ ^b	↔	↔	↔ ^b	↔	↔	↔	↔ ^e	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	clindamycin	↑	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	
	doxycycline	↔	↔	↔	↔	↔	↓?	↓?	↓?	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	lumefantrine	↑ ^b	↑ ^b	↑	↑	↑ ^b	↓=40%	↓	↓D46%	↔ ^e	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	metfloquine	↑ ^b	↑ ^b	↑	↑	↑ ^b	↓	↓	↓	↔ ^e	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	primaquine	↔	↔	↔	↔	↔	↔ ^d	↔ ^d	↔ ^d	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	proguanil	↔	↓41% ^a	↔	↓ ^a	↓38% ^a	↓44% ^a	↓E55% ^a	↓ ^a	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	pyrimethamine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	E	E	↔
	quinine	↑ ^b	↑ ^b	↑	↑	↑ ^b	↓	↓	↓	↔ ^e	E	↔	↔	↑	↔	↔	↔	↔	↔	↔
	sulfadoxine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	E	E	↔

ORIGINAL RESEARCH

Acute systemic inflammation induced by influenza A (H1N1) vaccination causes a deterioration in endothelial function in HIV-infected patients

C Vlachopoulos,¹ P Xaplanteris,¹ H Sambatakou,² E Mariolis,² A Bratsas,¹ E Christoforidou,¹ A Miliou,¹ K Aznaouridis¹ and C Stefanadis¹

Conclusions

Acute systemic inflammation induced by vaccination against the influenza A/H1N1 virus resulted in a deterioration in endothelial function in HIV-infected patients, and this effect was sustained for at least 48 h. Our findings may have important implications in view of the high cardiovascular risk that HIV infection carries. The effect of the novel vaccine on endothelial function should be weighed against the immunological protection that it confers.

HIV λοίμωξη

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment
Virology	Confirmation of HIV Ab pos	+		3-6 months	More frequent monitoring of HIV-VL at start of ART Perform genotypic resistance test before starting ART if not previously tested or if at risk of super-infection
	Plasma HIV-VL	+	+		
	Genotypic resistance test and sub-type	+	+/-	At virological failure	Screen if considering R5 antagonist in regimen
	R5 tropism (if available)		+/-		
Immunology	CD4 absolute count and %, CD4/CD8 ratio (optional: CD8 and %)	+	+	3-6 months	Annual CD4 count if stable on ART and CD4 count > 350 cells/ μ L ⁽¹⁾ CD4/CD8 ratio is a stronger predictor of serious outcomes
	HLA-B*5701 (if available)	+	+/-		Screen before starting ABC containing ART, if not previously tested, pages 13, 21



ΕΛΕΓΧΟΣ ΓΟΝΟΤΥΠΙΚΗΣ ΑΝΤΟΧΗΣ ΣΕ ΑΝΤΙΡΕΤΡΟΪΚΗ ΘΕΡΑΠΕΙΑ

ΑΡΧΙΚΑ (Επίθετο - Ονομα) : ΜΠ. ΚΩ. ΗΜ/ΝΙΑ ΓΕΝ: 8/1/1965 ΦΥΛΟ: ΑΡΡΕΝ

ΑΡΙΘΜΟΣ ΑΤΟΜΟΥ: ΗΙΥRES -000014

ΑΡ.ΚΕΕΛΠΝΟ:

ΗΜ/ΝΙΑ ΛΗΨΗΣ ΔΕΙΓΜΑΤΟΣ: 14/11/2011 ΩΡΑ: ΠΑΡΑΛΑΒΗ : 14/11/2011 ΩΡΑ:

ΙΑΤΡΟΣ: ΣΑΜΠΑΤΑΚΟΥ Ε.

ΝΟΣΟΚΟΜΕΙΟ/ΜΟΝ. ΥΓΕΙΑΣ: ΙΠΠΟΚΡΑΤΕΙΟ-ΜΕΛ

Εγινε RT-PCR στην περιοχή της πρωτεάσης (PR) και στο τμήμα (κωδικόνια 35 - 244) της αντίστροφης μεταγραφάσης (RT).

Στη συνέχεια ταυτοποιήθηκε η νουκλεοτιδική αλληλουχία των παραπάνω περιοχών και ανιχνεύθηκαν οι ακόλουθες μεταλλαγές που συνδέονται με ανθεκτικότητα σε αντιρετροϊκή θεραπεία :

☉ Περιοχή Αντίστροφης Μεταγραφάσης (RT)

E138A,K70G,M184V

☉ Περιοχή Πρωτεάσης (PR)

H69K,I13V,I62V,K20R,L89M,M36I,V77I

Εκτιμώμενη ανθεκτικότητα σε σχέση με τις παρατηρούμενες μεταλλαγές.

<u>Φάρμακο</u>	<u>Χαρακτηρισμός</u>	<u>Φάρμακο</u>	<u>Χαρακτηρισμός</u>	<u>Φάρμακο</u>	<u>Χαρακτηρισμός</u>	<u>Φάρμακο</u>	<u>Χαρακτηρισμός</u>
NELFINAVIR	S	KALETRA	S	ZIDOVUDINE	S	EFAVIRENZ	S
ATAZANAVIR	S	SAQUINAVIR/R	S	DIDANOSINE	I	NEVIRAPINE	S
FOSAMPRENAVIR	S	INDINAVIR/R	S	LAMIVUDINE	R	ETRAVIRINE	S
		TIPRANAVIR/R	S	STAVUDINE	S		
		DARUNAVIR/R	S	ABACAVIR	I		
		ATAZANAVIR/R	S	TENOFOVIR	I		
		FOSAMPRENAVIR/R	S	EMTRICITABINE	R		

Επεξήγηση

R

Ισχυρή αντοχή ή στη διαδικασία ανάπτυξης ισχυρής αντοχής.

Να μην παρερμηνεύονται ούτε ως δικαιολόγηση άλλα σύμφωνα



ΕΘΝΙΚΟ ΚΑΙ ΚΑΠΟΔΙΣΤΡΙΑΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ
ΙΑΤΡΙΚΗ ΣΧΟΛΗ
ΕΡΓΑΣΤΗΡΙΟ ΥΓΙΕΙΝΗΣ, ΕΠΙΔΗΜΙΟΛΟΓΙΑΣ ΚΑΙ ΙΑΤΡΙΚΗΣ ΣΤΑΤΙΣΤΙΚΗΣ

ΕΛΕΓΧΟΣ ΤΡΟΠΙΣΜΟΥ ΤΟΥ HIV-1

ΑΡΧΙΚΑ (Επίθετο - Ονομα) : ΜΠ. ΚΩ. **ΗΜ/ΝΙΑ ΓΕΝ:** 8/1/1965 **ΦΥΛΟ:** ΑΡΡΕΝ

ΑΡΙΘΜΟΣ ΑΤΟΜΟΥ: HIVTROP -000079

ΑΡ.ΚΕΕΛΠΝΟ:

ΗΜ/ΝΙΑ ΛΗΨΗΣ ΔΕΙΓΜΑΤΟΣ: 24/1/2012 **ΩΡΑ:** **ΠΑΡΑΛΑΒΗ :** 24/1/2012 **ΩΡΑ:**

ΙΑΤΡΟΣ: ΣΑΜΠΑΤΑΚΟΥ Ε.

ΝΟΣΟΚΟΜΕΙΟ/ΜΟΝ. ΥΓΕΙΑΣ: ΙΠΠΟΚΡΑΤΕΙΟ-ΜΕΛ

ΣΥΜΠΕΡΑΣΜΑ : Κατόπιν ταυτοποίησης της νουκλεοτιδικής αλληλουχίας της περιοχής V3 της πρωτεΐνης gp120 από δείγμα HIV-RNA βρέθηκε ότι ο ιός έχει τροπισμό για τον συνυποδοχέα CXCR4.

Επιλογή αρχικής HAART. Σε ποιόν ασθενή?

- Έναρξη σε πρόσφατη λοίμωξη
- Έναρξη σε ασθενή με συννοσηρότητες
- Έναρξη σε ασθενή με προχωρημένη HIV λοίμωξη

Νεοδιαγνωσθείς HIV ασθενής

Συγχορηγούμενα φάρμακα?

Συννοσηρότητες

Συλλοιμώξεις (HCV, HBV, TB)?

Κληρονομικό ιστορικό?

Έξεις, συνήθειες?

Ψυχιατρική κατάσταση?

Ετοιμότητα για έναρξη, συμμόρφωση στην HAART?

Σταδιοποίηση HIV/AIDS κατά CDC

CD4 cell	ασυμπτωματικοί, ή ΠΓΛ ή οξεία HIV λοίμωξη	συμπτωματικοί (μη A ή C)	νόσος που ορίζει AIDS
>500/mm ³ (>29%)	A1	B1	C1
200 - 499/mm ³ (14 - 28%)	A2	B2	C2
<200/mm ³ (<14%)	A3	B3	C3



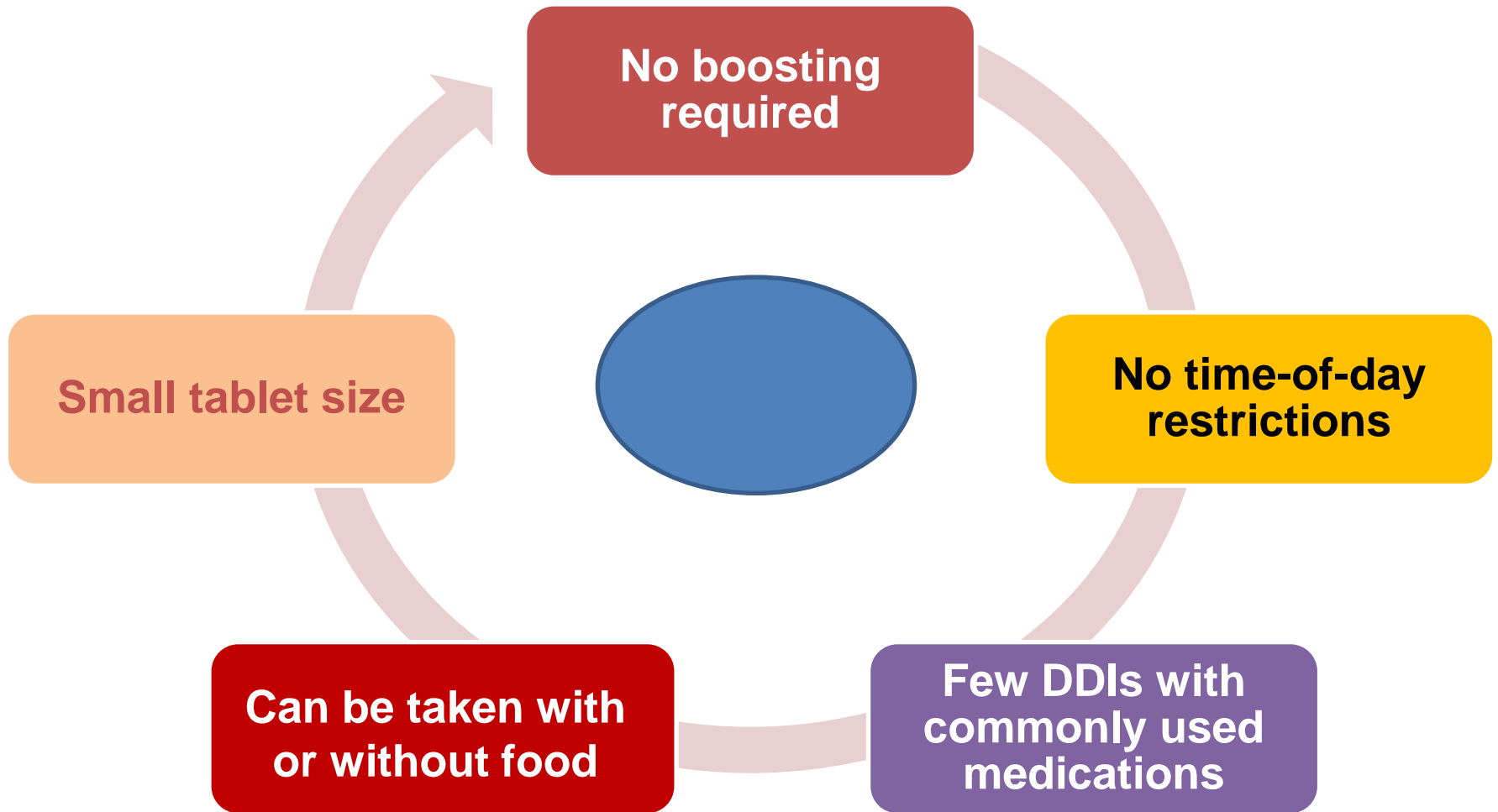
Ετοιμότητα για έναρξη, συμμόρφωση στην HAART

(adherence vs compliance)

- i. Χαρακτηριστικά νόσου
- ii. Κοινωνική στήριξη
- iii. Σχέση ασθενούς-γιατρού
- iv. Πηγές πληροφόρησης
- v. Περιβάλλον παροχής υγείας



CONVENIENCE BEYOND ONCE-DAILY DOSING



περίπτωση

Άντρας 25 ετών (MSM) με πυρετό από 10ημέρου και αίσθημα καταβολής αναφέρει στον γιατρό του ύποπτη επαφή πριν 2 εβδομάδες. Ποιά από τις παρακάτω εξετάσεις θα επιλέξουμε για έλεγχο λοίμωξης από HIV;

- a. HIV- RNA
- b. Elisa 4^{ης} γενιάς
- c. Rapid test
- d. Western Blot



Διάγνωση πρωτολοίμωξης

Θετικό HIV RNA (PCR or bDNA) + αρνητικό ή ακαθόριστο τεστ για αντίσωμα HIV ή πρόσφατη ορομετατροπή

Ann Intern Med 2001;134:25

Όμως HIV RNA <10.000 cop/ml μπορεί να είναι ψευδώς θετικό (2-9%)

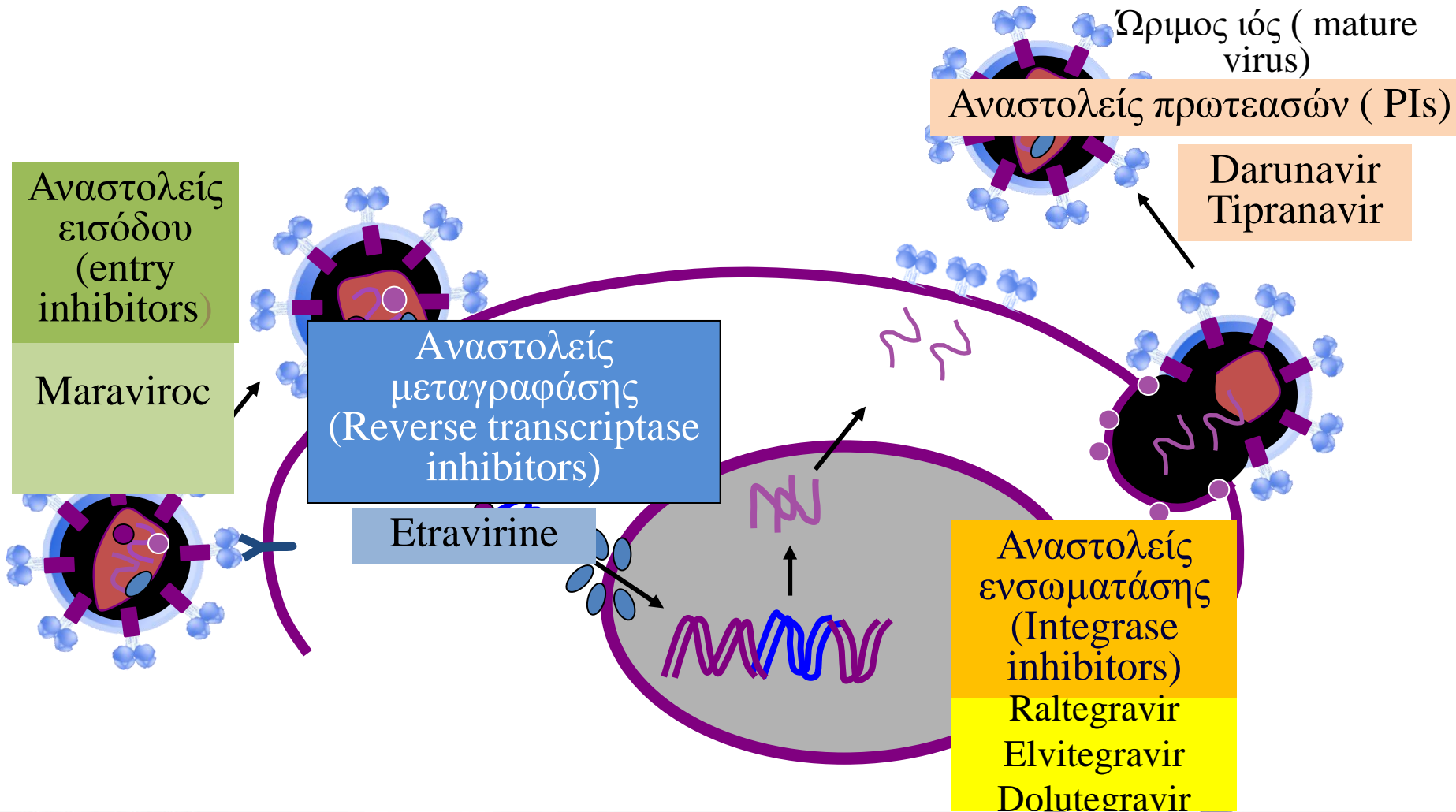
Ann Intern Med 2001;134:25

J Clin Microbiol 2000;38:2837

Αντιγόνο p24 : χαμηλότερο κόστος και υψηλή ειδικότητα, αλλά μόνο 89% ευαισθησία

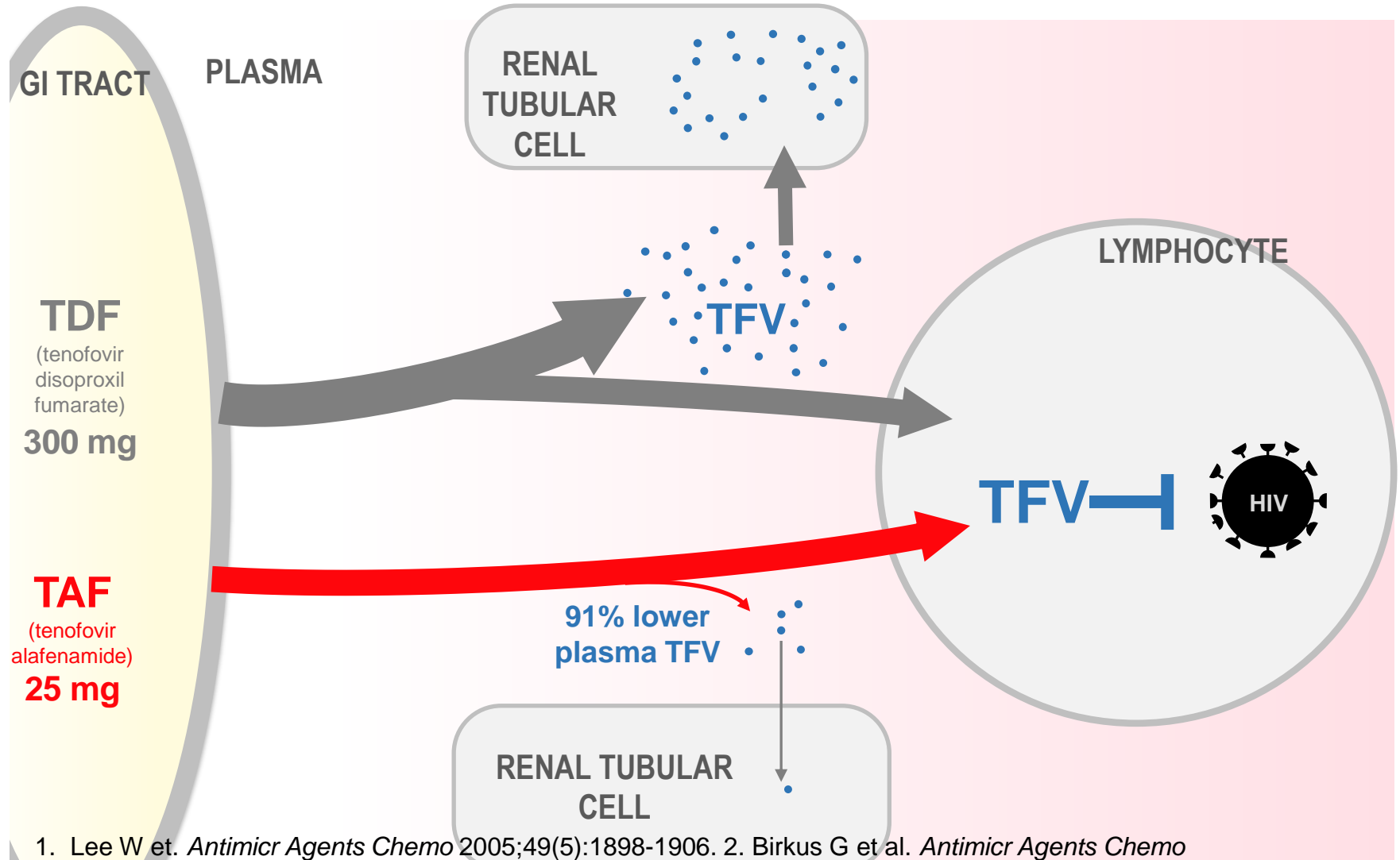


Νεώτερα αντιρετροϊκά



The Development of TAF

TAF Delivers the High Potency of TDF While Minimizing Off-Target Kidney and Bone Side Effects



1. Lee W et al. *Antimicrob Agents Chemo* 2005;49(5):1898-1906.
2. Birkus G et al. *Antimicrob Agents Chemo* 2007;51(2):543-550.
3. Babusis D, et al. *Mol Pharm* 2013;10(2):459-66.
4. Ruane P, et al. *J Acquir Immune Defic Syndr* 2013; 63:449-5.
5. Sax P, et al. *JAIDS* 2014. 2014 Sep 1;67(1):52-8.
6. Sax P, et al. *Lancet* 2015. Jun 27;385(9987):2606-15

Η απλούστευση της αντιρετροϊκής αγωγής - STRs (single tablet regimens)



Διαθέσιμα

EFV/FTC/TF (**ATRIPLA**)

RPV/ FTC/TF (**Eviplera**)

EVG/COBI/FTC/TF (**Stribild**)

DTG/ABC/3TC (**Triumeq**)

DRV/COB (**REZOLSTA**)

Πρόσφατα διαθέσιμα

RPV/ FTC/TAF (**Odefsey**)

EVG/COBI/FTC/TAF (**Genvoya**)

DRV/COBI/FTC/TAF (**Symtuza**)



Ιστορικές διαστάσεις της αντιρετροϊκής θεραπείας: Ελάττωση του φορτίου χαπιών

Εποχή πριν τη HAART



Υψηλού επιπέδου σχήματα πολλαπλών δόσεων ανά ημέρα

AZT (1987)

Αρχικώς κάθε 4 ώρες, ημέρα + νύχτα

«Πρώιμη» εποχή HAART



Σχήματα για κοινή χορήγηση, δύο φορές την ημέρα

AZT + 3TC (1997)

AZT + 3TC + ABC (2000)

«Όψιμη» εποχή HAART



Σχήματα για κοινή χορήγηση, μία φορά την ημέρα

ABC + 3TC (2004)

TDF + FTC (2004)

TDF + FTC + EFV (2006)

1987

1995
(αναπτυγμένες χώρες)

2000-2002 και μετά
(αναπτυγμένες χώρες)

Πότε αρχίζουμε αγωγή?



Recommendations for initiation of ART in HIV-positive persons (before 2013)

Condition	Current CD4+ lymphocyte count ^(i,ii)	
	350-500	> 500
Asymptomatic HIV infection	C	D
Symptomatic HIV disease (CDC B or C conditions) incl. tuberculosis	R	R
Primary HIV infection	C	C
Pregnancy (before third trimester)	R	R
Conditions (likely or possibly) associated with HIV, other than CDC stage B or C disease:		
HIV-associated kidney disease	R	R
HIV-associated neurocognitive impairment	R	R
Hodgkin's lymphoma	R	R
HPV-associated cancers	R	R
Other non-AIDS-defining cancers requiring chemo- and/or radiotherapy	C	C
Autoimmune disease – otherwise unexplained	C	C
High risk for CVD (> 20 % estimated 10-yr risk) or history of CVD	C	C
Chronic viral hepatitis		
HBV requiring anti-HBV treatment	R	R
HBV not requiring anti-HBV treatment	C/R ^(iv)	D
HCV for which anti-HCV treatment is being considered or given	R ^(v)	D ^(vi)
HCV for which anti-HCV treatment not feasible	R	C

ΠΡΩΙΜΗ VS ΟΨΙΜΗ ΕΝΑΡΞΗ ΑΝΤΙΡΕΤΡΟΙΚΗΣ ΑΓΩΓΗΣ

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Initiation of Antiretroviral Therapy in Early Asymptomatic HIV Infection

The INSIGHT START Study Group*

ation group be offered antiretroviral therapy. The primary end point occurred in 42 patients in the immediate-initiation group (1.8%; 0.60 events per 100 person-years), as compared with 96 patients in the deferred-initiation group (4.1%; 1.38 events per 100 person-years), for a hazard ratio of 0.43 (95% confidence interval [CI], 0.30 to 0.62; $P < 0.001$). Hazard ratios for serious AIDS-related and serious non-AIDS-related events were 0.28 (95% CI, 0.15 to 0.50; $P < 0.001$) and 0.61 (95%

CONCLUSIONS

The initiation of antiretroviral therapy in HIV-positive adults with a CD4+ count of more than 500 cells per cubic millimeter provided net benefits over starting such therapy in patients after the CD4+ count had declined to 350 cells per cubic millimeter. (Funded by the National Institute of Allergy and Infectious Diseases and others; START ClinicalTrials.gov number, NCT00867048.)

Έναρξη αντιρετροϊκής αγωγής ΤΩΡΑ



Με την διάγνωση, ανεξάρτητα από τον αριθμό των CD4 λεμφοκυττάρων

Guidelines for Treatment of HIV-Infected Pts

Guideline	AIDS or HIV-Related Symptoms	CD4+ Cell Count, cells/mm ³		
		< 350	350-500	> 500
EACS ^[1]	Yes	Yes	Yes	Yes
DHHS ^[2]	Yes	Yes	Yes	Yes
IAS-USA ^[3]	Yes	Yes	Yes	Yes
WHO ^[4]	Yes	Yes	Yes	Yes

ART initiation now recommended for all pts, regardless of CD4+ cell count

1. EACS HIV Guidelines. V 8.0. October 2015. 2. DHHS Guidelines. April 2015. 3. Günthard H, et al. JAMA. 2014;312:410-425. 4. WHO When to Start Guidelines. September 2015

Undetectable = Untransmittable

Effective antiretroviral treatment of HIV-positive individuals can lead to zero risk of transmitting the virus.

By Alan P. Goldstein, MD, MPH

Should HIV treatment be made available to all? How do we know it's effective, and how do we know it's safe? How do we know it's affordable? How do we know it's sustainable?

These are the questions that have driven the effective treatment of HIV. The answer is that we know it's effective, safe, affordable, and sustainable because of the evidence that has been accumulated over the past 20 years.

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These are the questions that have driven the effective treatment of HIV. The answer is that we know it's effective, safe, affordable, and sustainable because of the evidence that has been accumulated over the past 20 years.

What global research has been published to support the claim that undetectable = untransmittable?

The most important study is the Partners PrEP study, which is a randomized controlled trial looking at the safety and efficacy of PrEP in men who have sex with men.

Another important study is the HPTN 052 study, which is a randomized controlled trial looking at the safety and efficacy of PrEP in heterosexual couples.

What are the implications of the fact that undetectable = untransmittable?

The fact that undetectable = untransmittable has several implications. First, it means that we can now offer PrEP to all HIV-positive individuals who are sexually active. Second, it means that we can now offer PrEP to all HIV-negative individuals who are sexually active with an HIV-positive partner. Third, it means that we can now offer PrEP to all HIV-positive individuals who are sexually active with an HIV-negative partner.

Why is early diagnosis so important?

Early diagnosis is important because it allows us to start treatment as soon as possible, which can help to prevent the progression of the disease.



Professor David Bangs, MD, MPH, is the director of the Center for Global Health at the University of California, San Diego.

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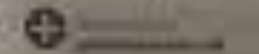
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Should TDF-Based Regimens Still Be Considered as Initial Therapy?

Two-drug HIV therapy just as effective as three-drug therapy

Gagliardini R et al. *ATLAS-M trial*. abstract 0121, 2016



Έναρξη αντιρετροϊκής αγωγής (1) πρώτης γραμμής



EACS European
AIDS Clinical Society

Regimen	Main requirements	Additional guidance (footnotes)
Recommended regimens		
2 NRTIs + INSTI		
ABC/3TC + DTG ABC/3TC/DTG	HLA-B*57:01 negative HBsAg negative	I (ABC: HLA-B*57:01, cardiovascular risk) II (Weight increase (DTG))
TAF/FTC or TDF/FTC or TDF/3TC + DTG		III (Weight increase (DTG, TAF)) IV (TDF: prodrug types. Renal and bone toxicity. TAF dosing)
TAF/FTC/BIC		II (Weight increase (BIC))
TAF/FTC or TDF/FTC or TDF/3TC + RAL qd or bid		IV (TDF: prodrug types. Renal and bone toxicity. TAF dosing) V (RAL: dosing)
1 NRTI + INSTI		
3TC + DTG or 3TC/DTG	HBsAg negative HIV-VL < 500,000 copies/mL	

Έναρξη αντιρετροϊκής αγωγής (2)

εναλλακτικά



EACS European
AIDS Clinical Society

Alternative regimens

2 NRTIs + NNRTI

TAF/FTC or TDF/FTC or TDF/3TC + DOR or TDF/3TC/DOR		IV (TDF: prodrug types. Renal and bone toxicity. TAF dosing) VI (DOR: HIV-2)
TAF/FTC or TDF/FTC or TDF/3TC + RPV or TAF/FTC/RPV or TDF/FTC/RPV	CD4 count > 200 cells/μL HIV-VL < 100,000 copies/mL Not on proton pump inhibitor With food	IV (TDF: prodrug types. Renal and bone toxicity. TAF dosing) VII (RPV: HIV-2)

2 NRTIs + PI/r or PI/c

TAF/FTC or TDF/FTC or TDF/3TC + DRV/c or DRV/r or TAF/FTC/DRV/c	With food	IV (TDF: prodrug types. Renal and bone toxicity. TAF dosing) VIII (DRV/r: cardiovascular risk)
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Other combinations

2 NRTIs + INSTI

ABC/3TC + RAL qd or bid	HBsAg negative HLA-B*57:01 negative	I (ABC: HLA-B*57:01, cardiovascular risk) V (RAL: dosing)
TDF/FTC/EVG/c or TAF/FTC/EVG/c	With food	IV (TDF: prodrug types. Renal and bone toxicity) IX (EVG/c: use in renal impairment)

2 NRTIs + NNRTI

ABC/3TC + EFV	HLA-B*57:01 negative HBsAg negative HIV-VL < 100,000 copies/mL At bed time or 2 hours before dinner	I (ABC: HLA-B*57:01, cardiovascular risk) X (EFV: neuro-psychiatric adverse events. HIV-2 or HIV-1 group 0)
TAF/FTC or TDF/FTC or TDF/3TC + EFV or TDF/FTC/EFV	At bed time or 2 hours before dinner	IV TDF: prodrug types. Renal and bone toxicity. TAF dosing) X (EFV: neuro-psychiatric adverse events. HIV-2 or HIV-1 group 0)

Εναλλακτικά σχήματα (συνέχεια)



EACS European
AIDS Clinical Society

2 NRTIs + PI/b		
ABC/3TC + ATV/c or ATV/r	HLA-B*57:01 negative HBsAg negative HIV-VL < 100,000 copies/mL Not on proton pump inhibitor With food	I (ABC: HLA-B*57:01, cardiovascular risk) XI (ATV/b: renal toxicity, hyperbilirubinemia)
ABC/3TC + DRV/c or DRV/r	HLA-B*57:01 negative HBsAg negative With food	I (ABC: HLA-B*57:01, cardiovascular risk) VIII (DRV/r: cardiovascular risk)
TAF/FTC or TDF/FTC or TDF/3TC + ATV/c or ATV/r	Not on proton pump inhibitor With food	IV (TDF: prodrug types. Renal and bone toxicity. TAF dosing) XI (ATV/b: renal toxicity, hyperbilirubinemia)
1 INSTI + PI/b		
RAL 400 mg bid + DRV/c or DRV/r	HBsAg negative HIV-VL < 100,000 copies/mL CD4 > 200 cells/μL With food	VIII (DRV/r: cardiovascular risk)

Same day HIV diagnosis and antiretroviral therapy initiation affects retention in Option B+ prevention of mother-to-child transmission services at antenatal care in Zomba District, Malawi

Adrienne K Chan^{1,2,3}, Emmanuel Kanike¹, Richard Bedell¹, Isabel Mayuni¹, Ruth Manyera¹, William Mlotha⁴,

Results and discussion: A total of 10,528 women were newly registered at ANC between October 2011 and March 2012 in 23 rural health facilities (12 were Model 1 and 11 Model 2). HIV status was ascertained in 8,572 (81%) women. Among 914/8,572 (9%) HIV-positive women enrolling at ANC, 101/914 (11%) were already on ART; of those not on treatment, 456/813 (56%) were started on ART. There was significantly higher ART uptake in Model 1 compared with Model 2 sites (63% vs. 51%; $p = 0.001$), but significantly lower ART retention in Model 1 compared with Model 2 sites (79% vs. 87%; $p = 0.02$). Multivariable analysis showed that initiation of ART on the same day as HIV diagnosis, but not model of care, was independently associated with reduced retention in the first six months (adjusted odds ratio 2.27; 95% CI: 1.34–3.85; $p = 0.002$).

Conclusions: HIV diagnosis and treatment on the same day was associated with reduced retention on ART, independent of the level of PMTCT service integration at ANC.

Trends in the San Francisco Human Immunodeficiency Virus Epidemic in the “Getting to Zero” Era

Susan Scheer,¹ Ling Hsu,¹ Sandra Schwarcz,¹ Sharon Pipkin,¹ Diane Havlir,² Susan Buchbinder,^{2,3,5} and Nancy A. Hessel^{2,4}

¹HIV Epidemiology Section, San Francisco Department of Public Health, and Departments of ²Medicine, ³Epidemiology and Biostatistics, and ⁴Clinical Pharmacy, University of California, and ⁵Bridge HIV, San Francisco Department of Public Health

These initiatives included the San Francisco Department of Public Health (SFDPH) recommendation for **universal antiretroviral therapy (ART)** irrespective of CD4+ lymphocyte count (CD4 cell count) in **2010**, increased **coverage** of and targeted **HIV testing** beginning in **2011** (Tracey Packer, SFDPH, personal communication), same-day initiation of ART at HIV diagnosis in 2012 [2], and **scale-up of HIV PrEP** to prevent HIV acquisition for high risk HIV-negative adults beginning in 2013

Clinical Infectious Diseases

EDITORIAL COMMENTARY



OXFORD

Rapid Antiretroviral Therapy: Time for a new Standard of Care

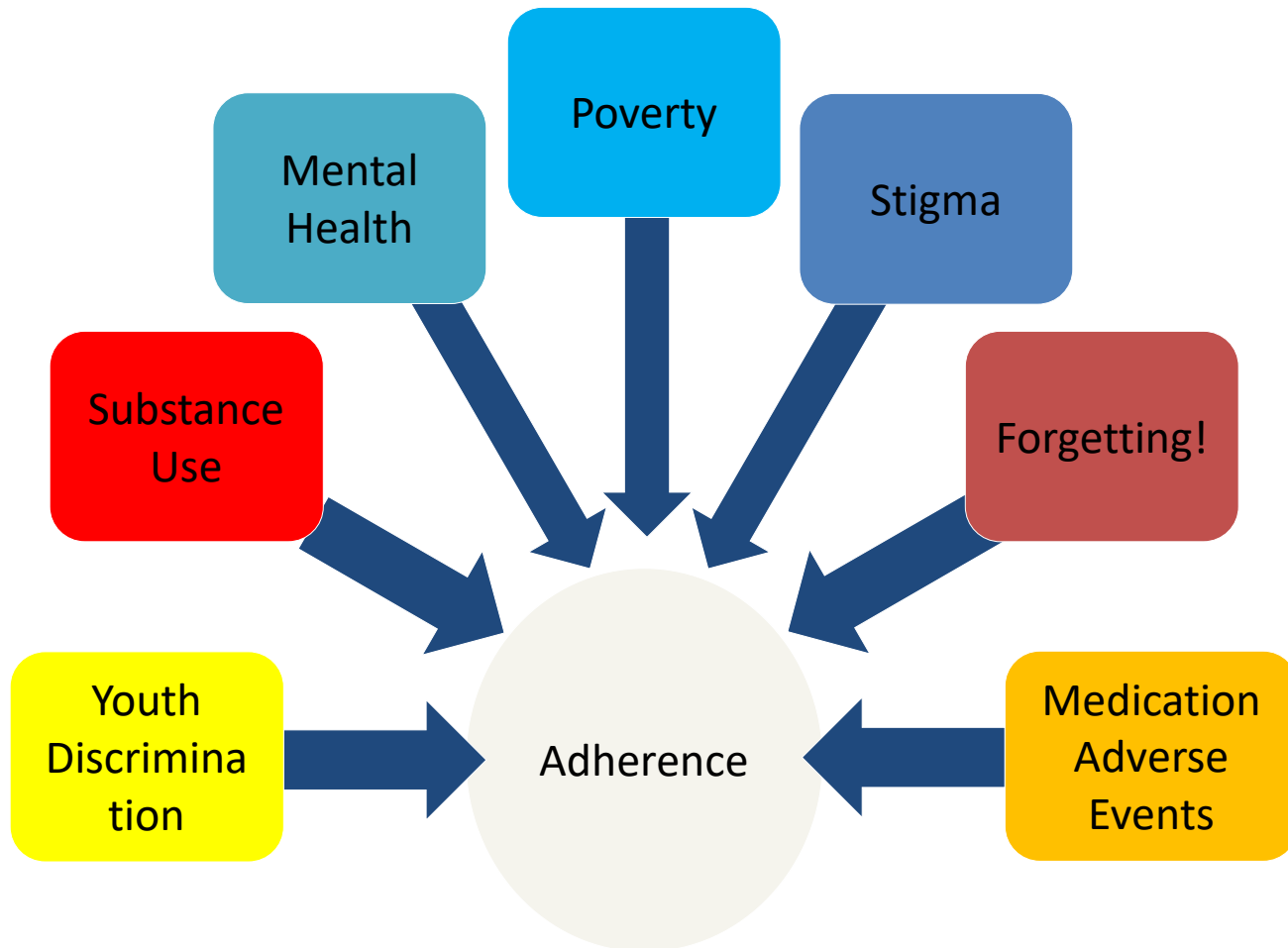
Susa Coffey,¹ Jason Halperin,² Aadia I. Rana,³ and Jonathan A. Colasanti^{4,5}

Clinical Infectious Diseases® 2020;

ART is recommended in all adults with chronic HIV infection, irrespective of CD4 counts¹⁰

- i ART is recommended irrespective of the CD4 count. In certain situations (i.e lower CD4 count or pregnancy), there is a greater urgency to start ART immediately
- In persons with OIs, ART initiation may have to be deferred, see page 104, for ART initiation in the presence of specific OIs. For ART initiation in persons with TB, see page 20
 - A possible exception to immediate start of ART might be HIV controllers, persons with high CD4 counts and HIV-VL < 1000 copies/mL, although even in such persons ART initiation has been shown to increase CD4 count, decrease inflammation, lower the risk of clinical events and prevent HIV transmission
 - Genotypic resistance testing is recommended prior to initiation of ART, ideally at the time of HIV diagnosis; otherwise before initiation of ART
 - If ART needs to be initiated before genotypic testing results are available, it is recommended to select a first-line regimen with a high barrier to resistance (e.g. a PI/b, DTG or BIC combined with TDF/FTC, TAF/FTC, TDF/3TC or ABC/3TC)
 - Whether rapid, possibly same-day ART start is proposed to newly diagnosed persons or postponed until complementary assessments depends on the setting and medical circumstances, medical indications to start ART more urgently and risk of loss from care. To reduce loss to follow-up between diagnosis and ART initiation, structural barriers delaying the process should be addressed

Assessing Barriers to Care and Treatment



Αντιρετροϊκή αγωγή συστήνεται για όλους τους HIV (+) ασθενείς, ανεξαρτήτως αριθμού CD4

- ✓ Σε ασθενείς με OIs, συστήνεται έναρξη ART εντός 2 εβδομάδων από τη διάγνωση
Εξαιρείται η κρυπτοκοκκική μηνιγγίτιδα, με σύσταση για καθυστέρηση έναρξης ART ≥ 4 εβδομάδες από την έναρξη αντιμυκητιακής αγωγής (κίνδυνος για απειλητικό για τη ζωή IRIS).
- ✓ Για έναρξη ART σε συλλοίμωξη με TB:
συστήνεται ως 1^η γραμμής ARV
TDF/FTC + RAL or TDF/FTC/EFV
< 50 cells/ μ L: Έναρξη ART το συντομότερο και εντός 2 εβδομ. από την έναρξη αντι-TB αγωγής.
 ≥ 50 cells/ μ L: Η ART μπορεί να καθυστερήσει έως 8 με 12 εβδομ από την έναρξη αντι-TB αγωγής

Ποια αντιρετροϊκή αγωγή επιλέγουμε?

Επιλογή αρχικής θεραπείας

Παράγοντες του φαρμάκου

Αριθμός χαπιών, μέγεθος, συχνότητα και διατροφικές ανάγκες
αποτελεσματικότητα

Προφίλ ανοχής/τοξικότητας

Παράγοντες ασθενούς

Προ θεραπείας αριθμός CD4+ κυττάρων

Συννοσηρότητες (καρδιαγγειακός κίνδυνος, ψυχιατρική νόσος)

Συγχορηγούμενα φάρμακα (αντιφυματικά, PPI,...), συλλοίμωξη

Προτίμηση ασθενούς, συμμόρφωση

Προοπτική εγκυμοσύνης

Παράγοντες του ιού

Ύπαρξη πρωτογενούς αντοχής

HIV-1 RNA προ της έναρξης



Πώς επιλέγω HAART?

- **Ανεπιθύμητες ενέργειες ή επιθυμία για απλούστευση**
- **Γνωστή ή αναμενόμενη μη συμμόρφωση**
- **Προοπτική εγκυμοσύνης**
- **Συλλοίμωξη (HCV, TB)**
- **Συννοσηρότητες**

Όμως... ένα νέο είδος “φορτίου φαρμάκων” για τη θεραπεία των επιπλοκών της HIV θεραπείας

Stribild



Ατορβαστατίνη



Κάψουλες ιχθυελαίου



Μετφορμίνη



ραμιπρίλη



Πως επιλέγω αρχική HAART σε συννοσηρότητες?

- Σε αυξημένο καρδιαγγειακό κίνδυνο, αποφυγή ABC, LPV/RTV, or FPV + RTV
- Σε έκπτωση νεφρικής λειτουργίας, το TDF θα πρέπει να αποφεύγεται, ιδιαίτερα με boosted PI
- Σε αυξημένο κίνδυνο καταγμάτων, είναι καλό να αποφεύγεται το TDF, ιδιαίτερα με boosted PI



Περίπτωση ασθενούς

Ασθενής 47 ετών με HIV λοίμωξη σταδίου C3 (PJP).

Ιικό φορτίο 120.000 cop/ml, 120 CD4

υπερλιπιδαιμία

tot cholest: 2400mg/dl, HDL: 39mg/dl,

ΑΠ: 136/90mmHg (όχι αντιυπερτασική αγωγή)

καπνιστής

Τι είδος HAART θα χορηγήσουμε? Άλλη αγωγή?

KA - ATP

Information about your risk score:

Age: 47

Gender: male

Total Cholesterol: 240 mg/dL

HDL Cholesterol: 39 mg/dL

Smoker: Yes

Systolic Blood Pressure: 136 mm/Hg

On medication for HBP: No

Risk Score* 19%

Means 19 of 100 people with this level of risk will have a heart attack in the next 10 years.

* Your risk score was calculated using an equation. Other NCEP products, such as printed ATP III materials, use a point system to determine a risk score that is close to the equation score.

Αφαίρεση του καπνίσματος....



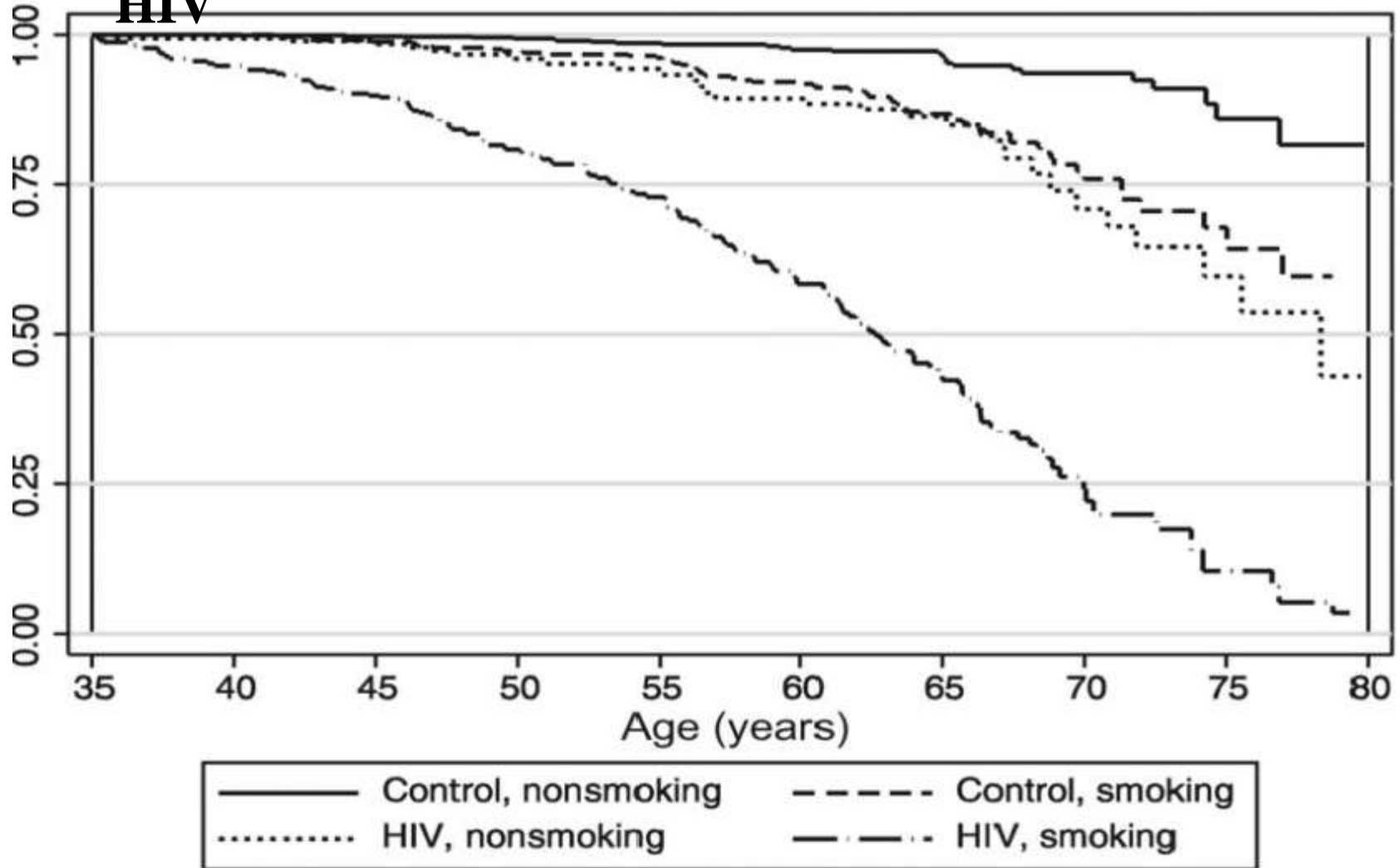
Systolic Blood Pressure: 136 mm/Hg

On medication for HBP: No

Risk Score* 6%
Means 6 of 100 people with this level of risk will have

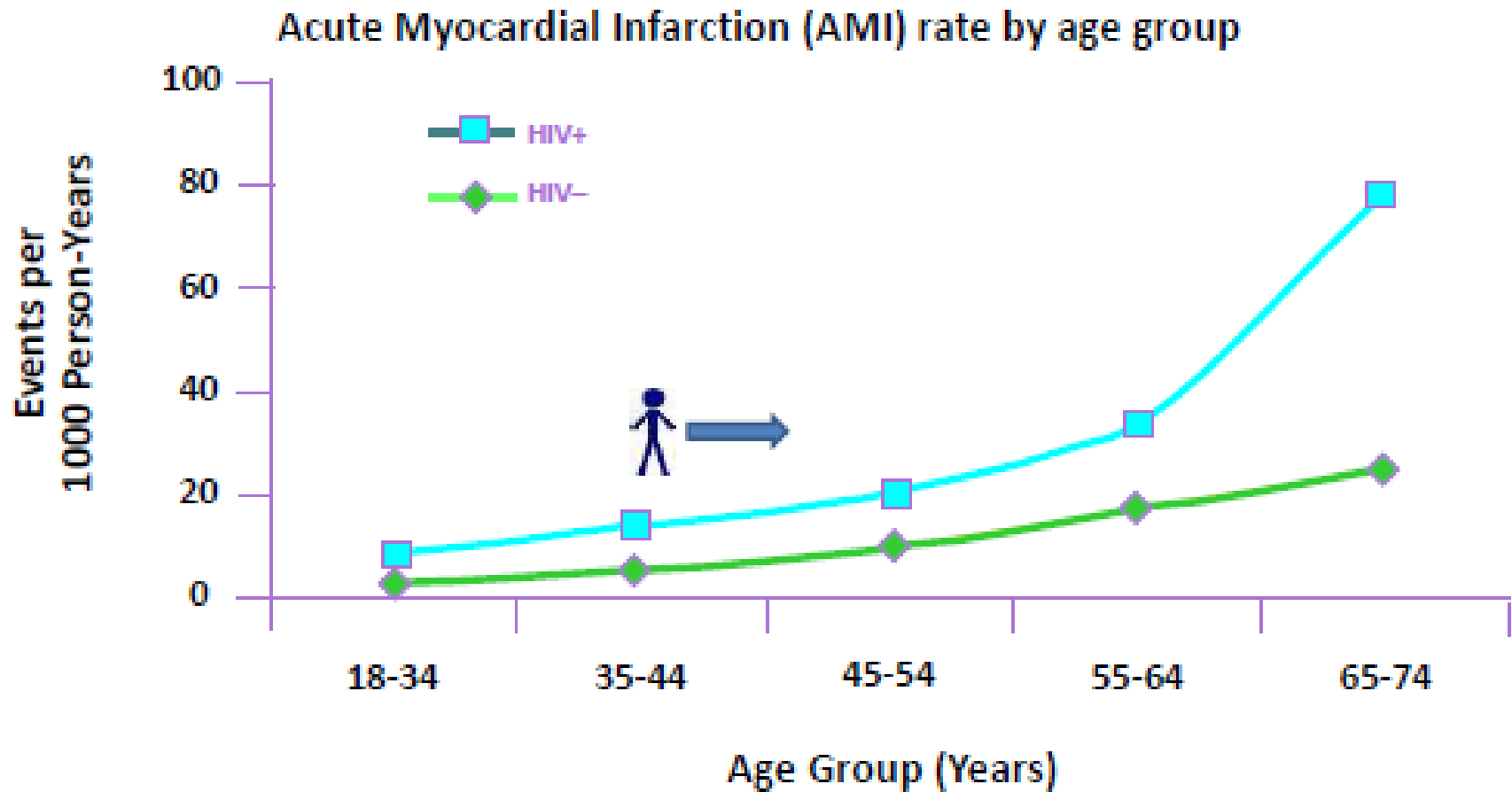
Εκτός από τη HAART...

A HIV-infected smokers lose more life-years to smoking than to HIV



2921 HIV patients and 10 642 controls were followed for 14 281 and 45 122 person-years, respectively

ΟΕΜ σε HIV (+) και HIV (-) ασθενείς



Cohorts (HIV+ =3851, HIV- =1,044,589) were identified in the Research Patient Data Registry.

The primary outcome was AMI.

Παράγοντες κινδύνου για καρδιαγγειακή νόσο

Μη μεταβλητοί

ηλικία

οικογενειακό ιστορικό

Εθνικότητα

φύλο

**Άλλοι παράγοντες δυνητικά
σχετιζόμενοι με την HIV**

- Αυξημένα επίπεδα τριγλυκεριδίων
 - Φλεγμονώδεις δείκτες
 - Δυσλειτουργία ενδοθηλίου
 - Αντοχή στην ινσουλίνη

Μεταβλητοί

Κάπνισμα

υπέρταση

αυξημένα επίπεδα ολικής και LDL-C

χαμηλά επίπεδα HDL-C
σακχαρώδης διαβήτης

παχυσαρκία

Έλλειψη σωματικής άσκησης

Με κόκκινα γράμματα, οι σημαντικοί παράγοντες

☐ δυνητικά συσχετιζόμενοι με την HIV και την HAART





ELSEVIER

available at www.sciencedirect.com



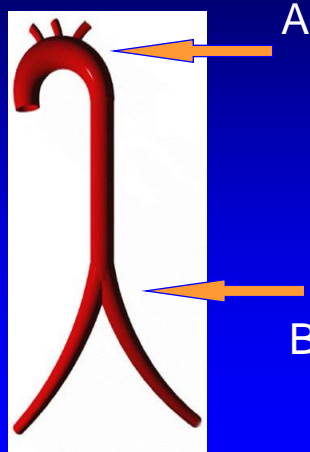
journal homepage: www.elsevier.com/locate/artres



Impact of human immunodeficiency virus infection on arterial stiffness and wave reflections in the early disease stages

Charalambos Vlachopoulos^{a,*}, Helen Sambatakou^b, Dimitris Tsiachris^a, Ilias Mariolis^b, Konstantinos Aznaouridis^a, Nikolaos Ioakeimidis^a, Athanasios J. Archimandritis^b, Christodoulos Stefanadis^a

Pulse Wave Velocity (PWV)



$$PWV = \frac{\text{distance}}{\text{time}}$$

Non-invasive
evaluation



Στατίνες, αντιυπερτασικά: Αλληλεπιδράσεις με ΗΑΑΤ

Non-ARV drugs	ATV/c	ATV/r	DRV/c	DRV/r	LPV/r	EFV	ETV	NVP	RPV	MVC	DTG	EVG/c	RAL	ABC	FTC	3TC	TAF	TDF	ZDV
atorvastatin	↑822%	↑	↑290%	↑	↑490%	↓43%	↓37%	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
fluvastatin	↑	↑	↑	↔	↔	↑	↑	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
pravastatin	↑	↑	↑	↑81%	↔	↓44%	↓	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
rosuvastatin	↑242%	↑213%	↑93%	↑48%	↑107%	↔	↔	↔	↔	↔	↔	↑38%	↔	↔	↔	↔	↔	↔	↔
simvastatin	↑	↑	↑	↑	↑	↓68%	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
amlodipine	↑ ^o	↑ ^o	↑	↑	↑ ^o	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
diltiazem	↑ ^o	↑ ^o	↑	↑	↑ ^o	↓69%	↓E	↓	E	E	↔	↑	↔	↔	↔	↔	↔	↔	↔
metoprolol	↑ ^o	↑ ^o	↑	↑	↑ ^o	↔	↔	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
verapamil	↑ ^o	↑ ^o	↑	↑	↑ ^o	↓	↓E	↓	E	E	↔	↑	↔	↔	↔	↔	E	E	↔
warfarin	↑	↑ or ↓	↑	↓	↓	↑ or ↓	↑	↑ or ↓	↔	↔	↔	↓	↔	↔	↔	↔	↔	↔	↔

Cardiovascular drugs

Αλληλεπιδράσεις ART με στατίνες

Antiretroviral	Contraindicated	Titrate Dose	No Dose Adjustment
RPV ^[1]			Atorvastatin Pitavastatin
EVG/COBI/FTC/ TDF ^[1]	Lovastatin Simvastatin	Atorvastatin Rosuvastatin	
DTG ^[1,2]		Metformin	
ATV/RTV ^[1]	Lovastatin Simvastatin	Atorvastatin Rosuvastatin	Pitavastatin
DRV/RTV ^[1]	Lovastatin Simvastatin	Atorvastatin Pravastatin Rosuvastatin	Pitavastatin
EFV ^[1]		Atorvastatin Simvastatin Pravastatin Rosuvastatin	Pitavastatin
RAL ^[1]			
ATV/COBI or DRV/COBI	Lovastatin Simvastatin		

1. DHHS Guidelines. April 2015. 2. Dolutegravir [package insert].

ΑΕ' , ... , Β' & ...
Ναυ-εξυγλυκερικό οξύ 8.6.2016

ΓΙΑ ΤΟΝ ΔΙΑΒΗΤΗ

- Insulines
- Thesla, 98 τοι. κτρωσία
- Novorapid, 8-20 τοι. κτρωσία x3
- Janumet x2

ΓΙΑ ΤΗΝ ΥΠΕΡΤΑΣΗ

- Covercyl, 10 mg x1
- Fisiotens x2
- Tildiem, 300 mg x1

ΓΙΑ ΤΗΝ ΧΟΛΗΣΤΕΡΙΝΗ

- Crestor, 10 mg x1
- Omacor, 1000 mg x1

ΓΙΑ ΤΟΝ ΘΥΡΕΟΕΙΔΗ

- T4, 150 mg

ΓΙΑ ΤΗΝ ΗΠΑΤΟΠΑΘΕΙΑ

- Ursodiol x4

- Piduix x1

Επι κίνηση (ορμονοθεραπεία)

- melatonin, 2 mg
- triticum

ΓΙΑ ΤΗΝ ΔΙΑΒΗΤΙΚΗ ΓΑΣΤΡΟΠΑΡΕΣΗ (ορμονοθεραπεία)

- X-Prep ή
- Laxidol ή
- Important Colicid ή
- Dulcolax

New York Magazine 11-9-09

The New HIV Scare



HAART και αντικαταθλιπτικά

Antidepressants		ATV/r	DRV/c	DRV/r	LPV/r	EFV	ETV	NVP	RPV	MVC	DTG	EVG/c	RAL
SSRI	citalopram	↑ ^a	↑	↑	↑ ^a	↓	↓	↓	↔	↔	↔	↑	↔
	escitalopram	↑ ^a	↑	↑	↑ ^a	↓	↓	↓	↔	↔	↔	↑	↔
	fluvoxamine	↑	↑	↑	↑	↔	↔	E	↔	↔	↔	↑	↔
	fluoxetine	↑	↑	↑	↑	↔	↔	↔	↔	↔	↔	↑	↔
	paroxetine	↑↓?	↑↓?	↓30%	↑↓?	↔	↔	↔	↔	↔	↔	↑↓?	↔
	sertraline	↓	↑	↓40%	↓	↓30%	↓	↓	↔	↔	↔	↑	↔
SNRI	duloxetine	↑↓	↑	↑↓	↑↓	↔	↔	↔	↔	↔	↔	↑	↔
	venlafaxine	↑	↑	↑	↑	↓	↓	↓	↔	D	↔	↑	↔
TCA	amitriptyline	↑ ^a	↑	↑	↑ ^a	↔	↔	↔	↔	↔	↔	↑	↔
	clomipramine	↑ ^a	↑	↑	↑ ^a	↓	↓	↓	↔	↔	↔	↑	↔
	desipramine	↑ ^a	↑	↑	↑5% ^a	↔	↔	↔	↔	↔	↔	↑	↔
	doxepin	↑	↑	↑	↑	↔	↔	↔	↔	↔	↔	↑	↔
	imipramine	↑ ^a	↑	↑	↑ ^a	↓	↓	↓	↔	↔	↔	↑	↔
	nortriptyline	↑ ^a	↑	↑	↑ ^a	↔	↔	↔	↔	↔	↔	↑	↔
	trimipramine	↑	↑	↑	↑	↔	↔	↔	↔	↔	↔	↑	↔
TeCA	maprotiline	↑	↑	↑	↑	↔	↔	↔	↔	↔	↔	↑	↔
	mianserine	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↑	↔
	mirtazapine	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↑	↔
Others	bupropion	↓	↔	↓	↓57%	↓55%	↔	↓	↔	↔	↔	↑?	↔
	lamotrigine	↓32%	↔	↓	↓50%	↓	↔	↔	↔	↔	↔	↔	↔
	nefazodone	↑	↑	↑	↑	↓E	↓E	↓E	E	E	↔	↑	↔
	St John's wort	D	D	D	D	D	D	D	D	D	D ^b	D	↔
	trazodone	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↑	↔

www.hiv-druginteractions.org



Interaction Report

Report ID: DE EY
Date Produced: 09 June 2016

Antiretroviral Treatment

Cobicistat (with ATV or DRV)
Darunavir

Co-medications

Clopidogrel
Diltiazem
Fish oils
Perindopril
Rosuvastatin
Trazodone

Prevalence and predictors of liver steatosis and fibrosis in unselected patients with HIV mono-infection

Rosa Lombardi, H. Sambatakou, I. Mariolis, D. Cokkinos
, G. Papatheodoridis, E. Tsochatzis
Dig Liver Dis 2016



Μακράς δράσεως ενέσιμη αγωγή?? Το μέλλον? Cabotegravir, Rilpivirine



Will long-acting injectables
be an end to pill problems,

and can we talk openly
about imperfect adherence?



The new 90-90-90: \$90-\$90-\$90

HIV Glasgow 2016

Andrew



PrEP bought online: no fakes and good blood levels

Nneka Nwokolo of the [56 Dean Street](#) clinic in Soho



EASY STEPS TO GET PrEP

- 1. SEE YOUR DOCTOR**
 - DO BLOOD TESTS (HIV, KIDNEY & LIVER FUNCTION)
 - GET A PRESCRIPTION
- 2. SCAN & SEND to info@silompulse.com**
- 3. PURCHASE ONLINE (3 MONTHS SUPPLY)**
- 4. TAKES 2-14 DAYS TO ARRIVE**
- 5. TAKE YOUR PrEP DAILY !**

PREP: A PILL A DAY THAT KEEPS YOU HIV NEGATIVE



www.iwantprepnw.co.uk

RESEARCH ARTICLE

Perception of Antiretroviral Generic Medicines: One-Day Survey of HIV-Infected Patients and Their Physicians in France

556 από **703 (79%)** HIV+ ασθενείς και **116** γιατροί σε **33** κέντρα
Ασθενείς: **76%** αποδοχή γενοσήμων και τα εμπιστεύονται γενικά **55%**
Τα γενόσημα αντιρετροϊκά ήταν αποδεκτά από **44%** , αλλά μόνο **17%** αν επρόκειτο να αυξηθεί ο αριθμός χαπιών.

Ο σημαντικότερος παράγων ήταν η αποδοχή των γενόσημων γενικά ($p < 0.001$).

Από τους **116** γιατρούς (100 HIV-ασθενείς /έτος,) **75%** θα συνταγογραφούσαν γενόσημα, με **26%** αν STR θα έπρεπε να αντικατασταθεί από > χάπια.

HIV status και συννοσηρότητες σχετίζεται με αποδοχή



Generic substitution of antiretrovirals: patients' and health care providers' opinions

Jennifer A Kieran^{1,2}, Eimear O'Reilly³, Siobhan O'Dea¹,
Colm Bergin^{1,4} and Aisling O'Leary^{2,3}

66 ασθενείς. **71%** δεν έχουν ενδιασμό για γενόσημα ARVs. Αύξηση στην συχνότητα δόσεων (**61%**) ή αριθμό χαπιών (**53%**) αιτία για λιγότερο αποδεκτά τα γενόσημα. **30** γιατροί ανταποκρίθηκαν στο ερωτηματολόγιο. Ανησυχία για την αλυσίδα παροχής, απώλεια STR, συμμόρφωση, υποκατάσταση με παλαιότερα φάρμακα. Αύξηση στην συχνότητα δόσεων (**76%**) ή αριθμό χαπιών (**50%**) <προθυμία για γενόσημη ARV.

You know that question
that goes through your mind
when you take your
generic drug?
Here's the answer.

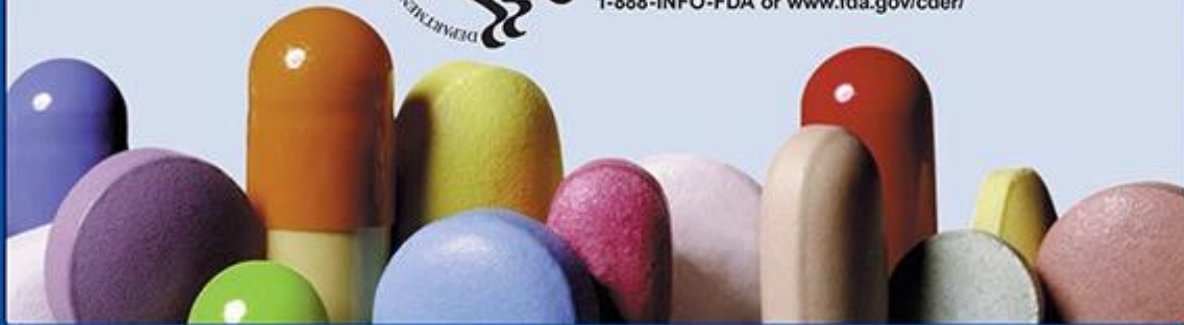
FDA ensures that all generic drugs are put through a rigorous, multi-step review process. From manufacturing to labeling, everything must meet FDA's high standards. We make it tough to become a generic drug in America so you can feel confident.


Generic Drugs: Safe. Effective. FDA Approved.



U.S. Food and Drug Administration

1-888-INFO-FDA or www.fda.gov/cder/





**Εσύ
γνωρίζεις
τι είναι τα
γενόσημα
φάρμακα;**

Θετική Φωνή
άνθρωποι+HIV

www.positivevoice.gr
info@positivevoice.gr



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Version 10.1

October 2020

English

www.europeanidsclinicalociety.org

Αλγόριθμοι διάγνωσης, θεραπείας και
αντιμετώπισης

HIV και συννοσηροτήτων σε HIV ασθενείς

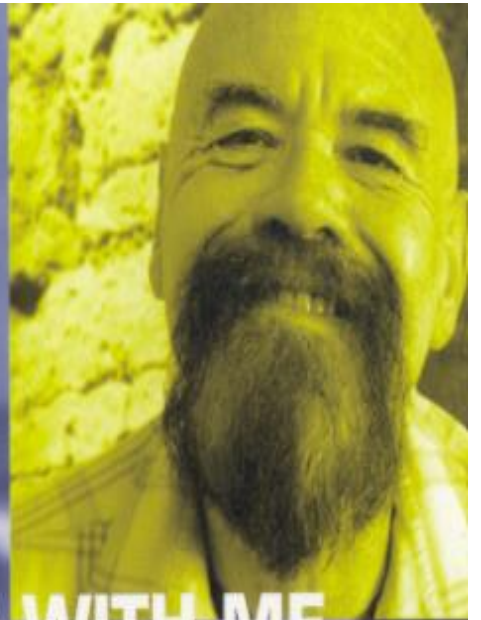
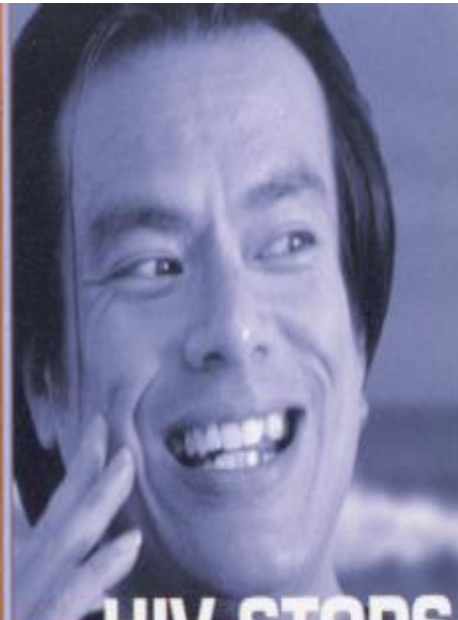
**HIV
positive**

gay and bisexual men
have the

POWER

to
end

the
EPIDEMIC



HIV STOPS WITH ME

