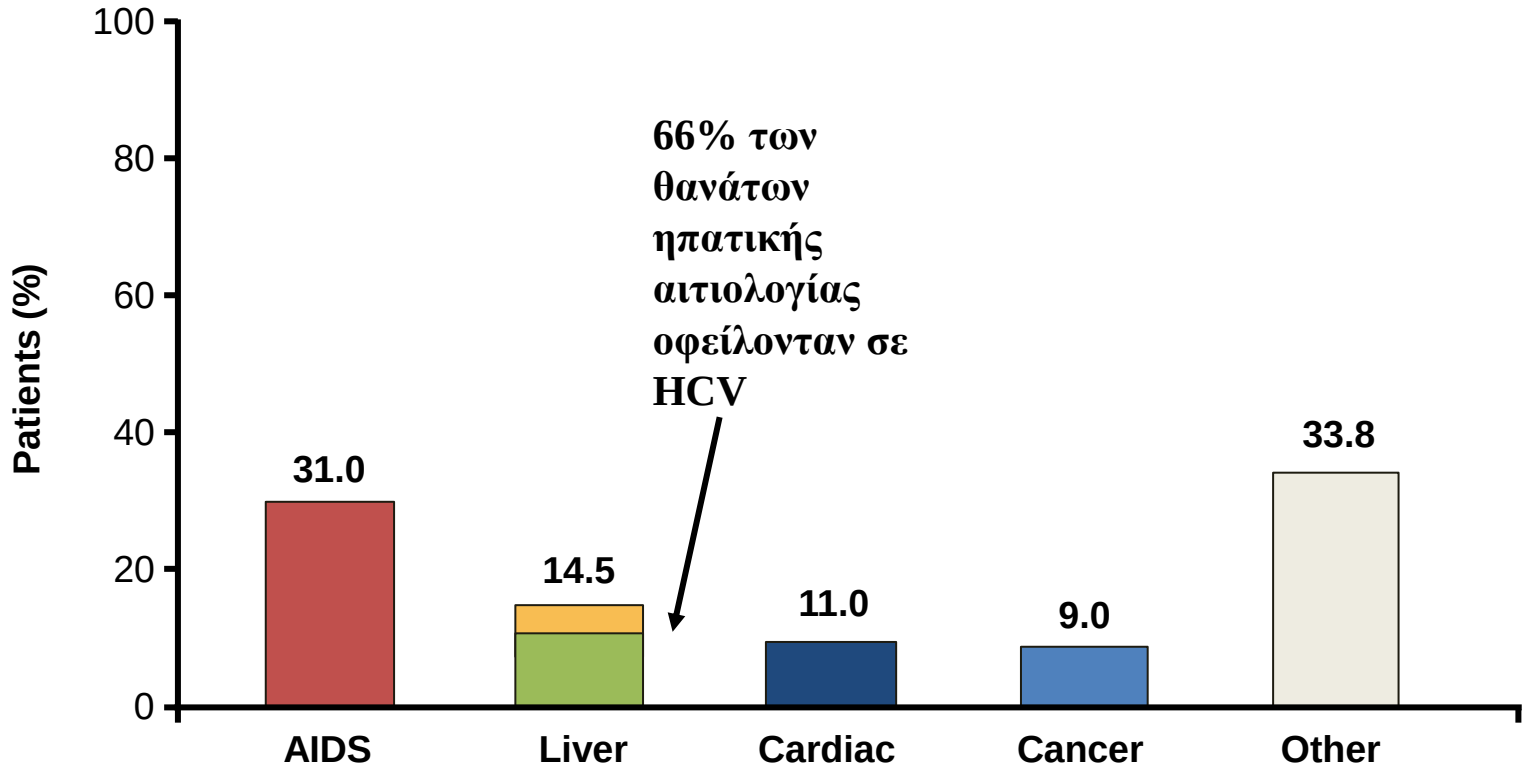
Κατευθυντήριες γραμμές αντιμετώπισης HIV λοίμωξης

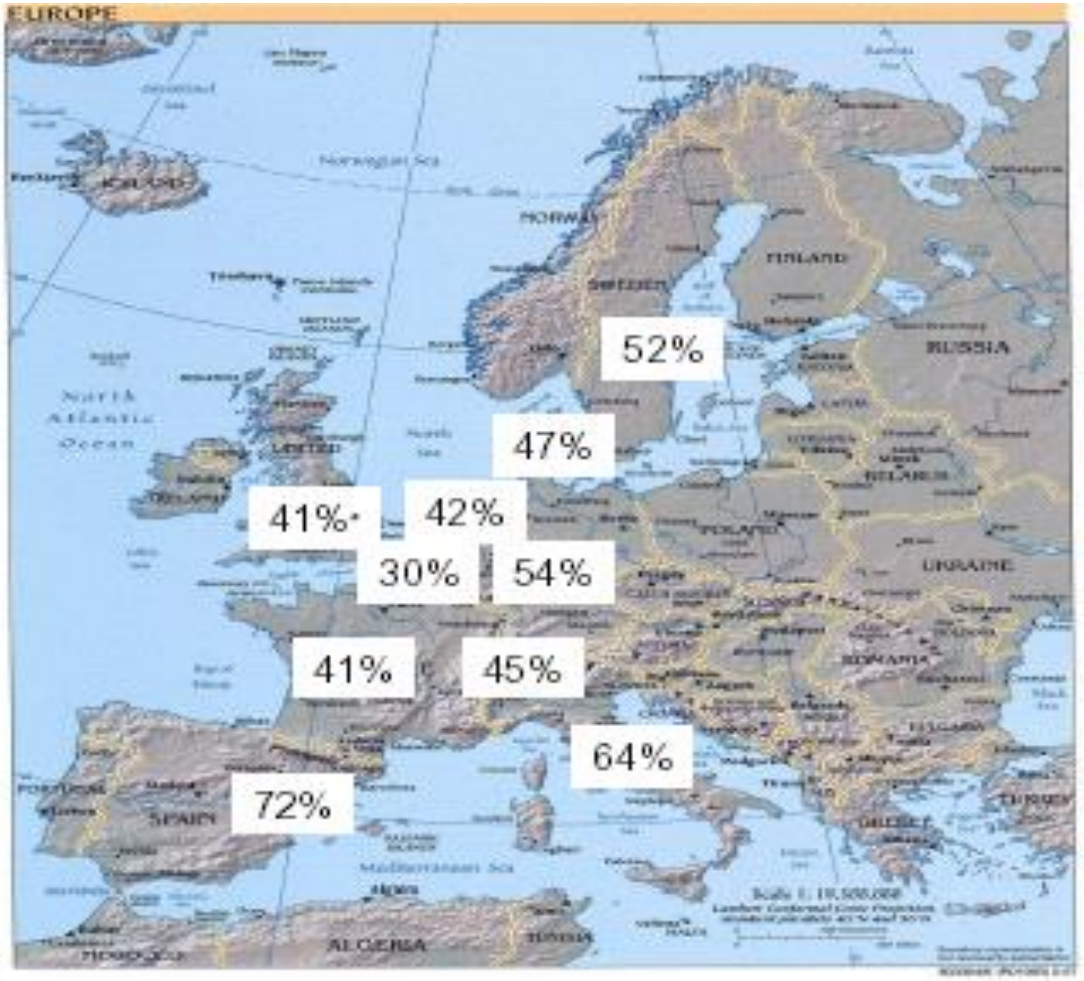
Σαμπατάκου Ελένη
Αν. Καθηγήτρια Παθ/γίας Λοιμώξεων ΕΚΠΑ

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



Sulkowski MS. J Hepatol. 2008;48:353-367. Weber R, et al. Arch Intern Med. 2006;166:1632-1641.

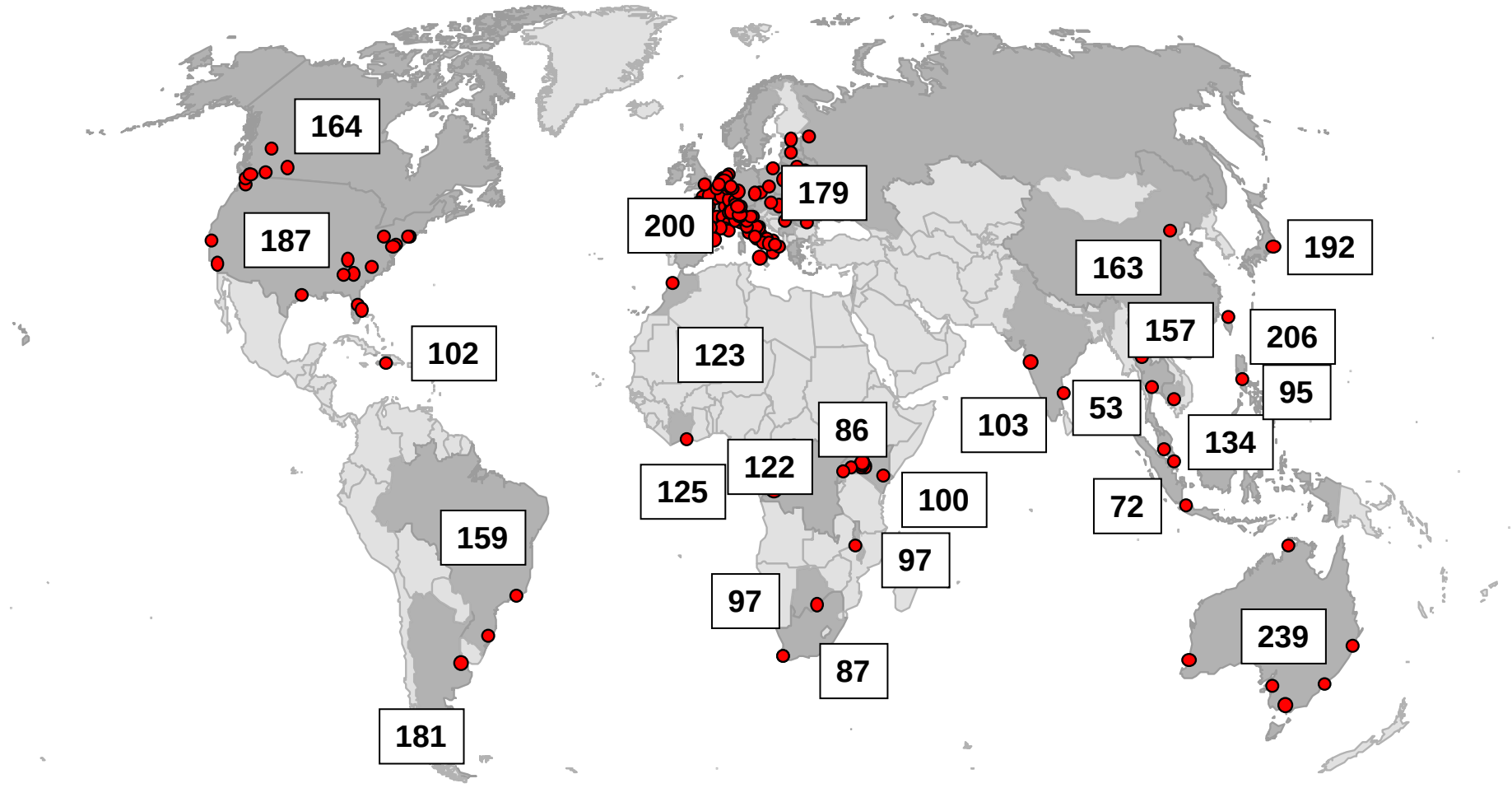
Πσσοστά "late presenters" προσερχόμενοι σε Κέντρα το 2008



*: 2007

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**)

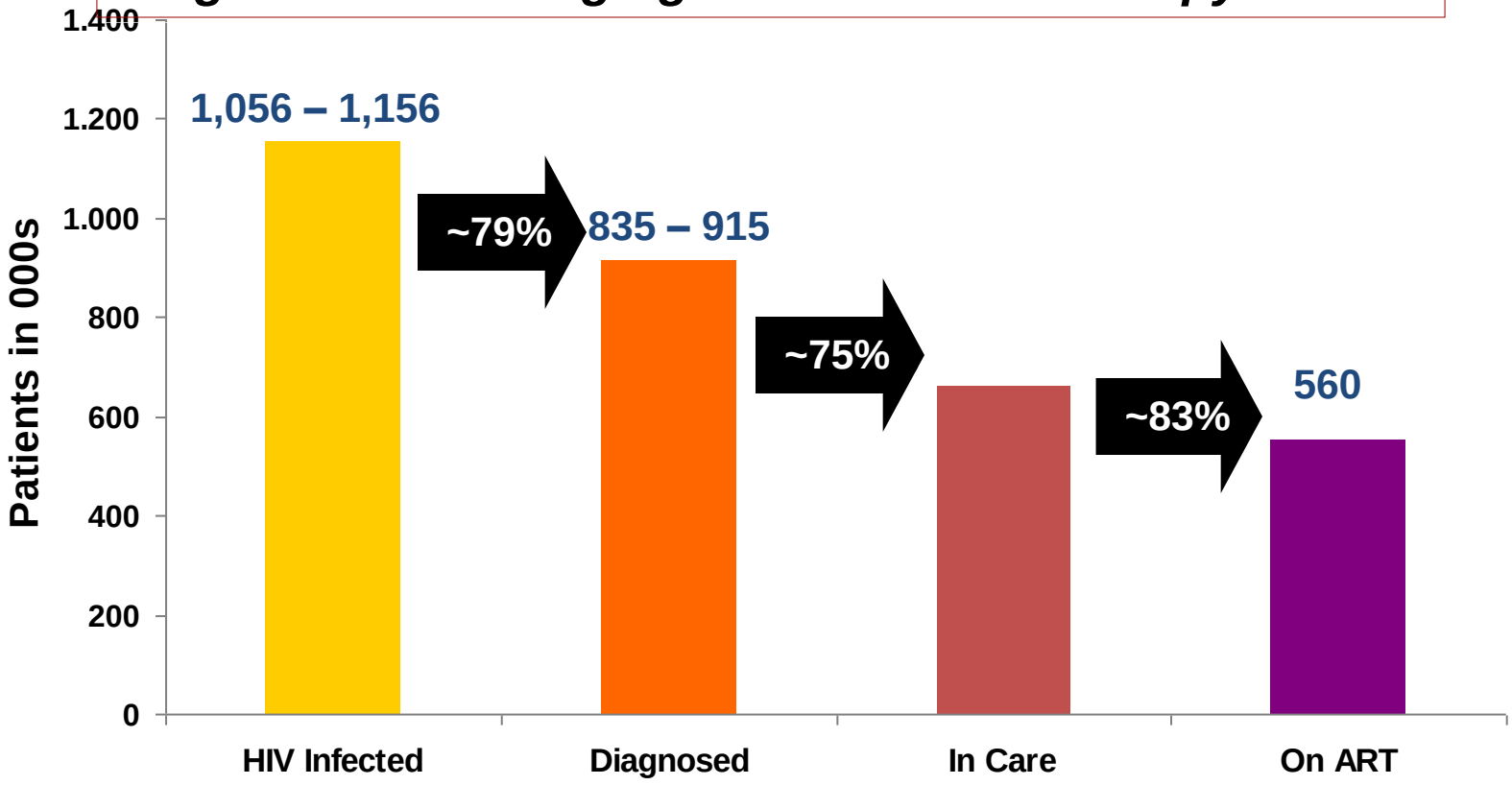
CD4 count at start of ART, 2003-2005
42 countries, 176 sites, 33,008 patients



Numbers are median CD4 counts

U.S. HIV Market Dynamics

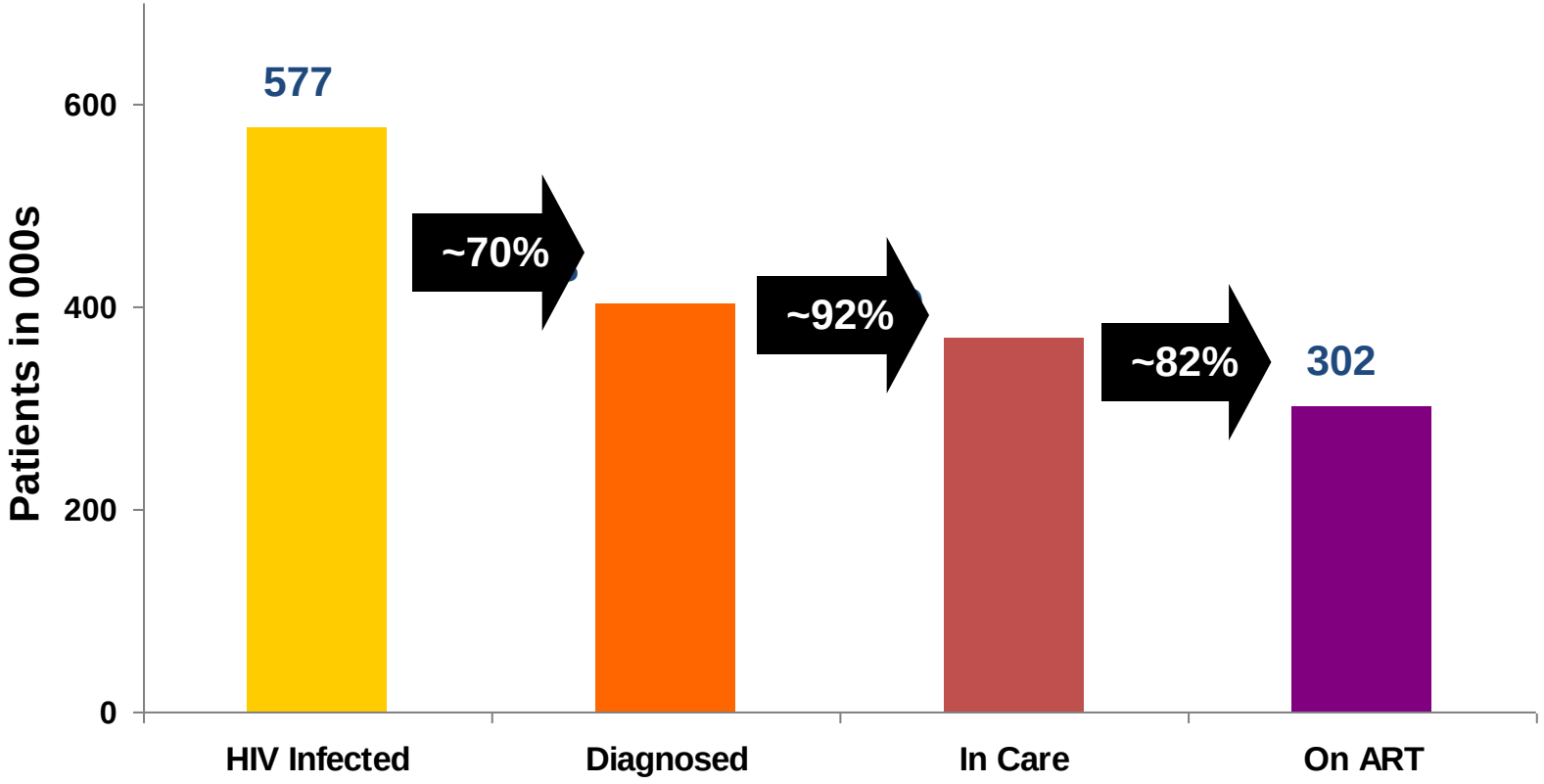
Significant Opportunity Remains in Increasing Diagnosis and Bringing Patients onto Therapy



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

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


I'm GAY,
NIGERIAN
& REAL!

Age is Not a Condom

HIV in the era of SARS-CoV-2 pandemic. Communicating Effectively With Patients During Times of Uncertainty

Patient questions:

Does HIV put me at increased risk for COVID-19 infection and severe disease?

Do my HIV medications protect me from COVID-19?

Are COVID-19 vaccines safe and effective in PWH?

Healthcare professionals can acknowledge uncertainty and be transparent about what is and is not known:

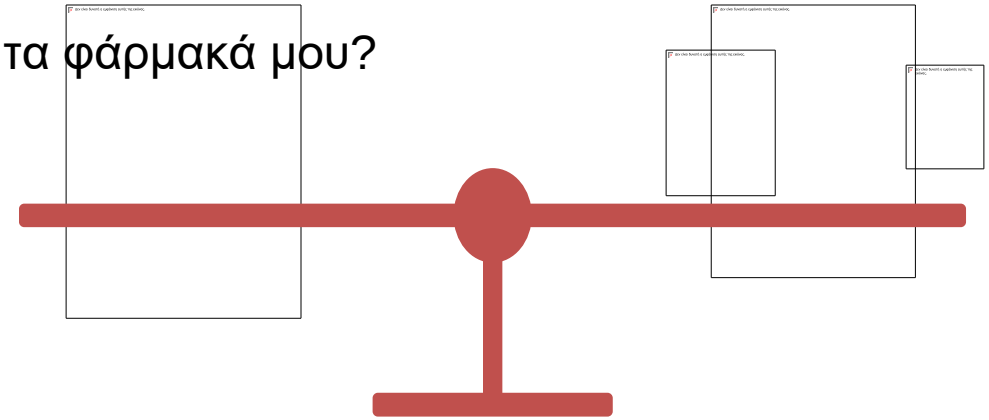
"Data are limited, but here is what we know . . . "

"Here is what experts recommend after careful review of all available data . . . "

"Here is what I am recommending to my own family . . . "

Η HIV λοίμωξη την εποχή της COVID-19: Η νέα πραγματικότητα

Πώς θα προμηθευτώ χωρίς διακοπή τα φάρμακά μου?
Πόσο βοηθάει η τηλεϊατρική?
Πώς θα γίνει αλλαγή ART?



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Version 11.0
October 2021

English

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 Provide counselling if needed	
	Social and welfare	+	+			
	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 Risk of sexual transmission should be addressed	80-83
	Safe sex	+				
	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

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment
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
	Plasma HIV-VL	+	+		
	Genotypic resistance test and sub-type	+	+/-	At virological failure	
	R5 tropism (if available)		+/-		Screen if considering R5 antagonist in regimen
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/μL (ii) CD4/CD8 ratio is a stronger predictor of serious outcomes
	HLA-B*57:01 (if available)	+	+/-		Screen before starting ABC containing ART, if not previously tested, pages 12-13, 24
CO-INFECTIONS					
STIs	Syphilis serology	+		Annual/ as indicated	Consider more frequent screening if at risk
	STI screen	+		Annual/ as indicated	Screen if at risk and during pregnancy

screening για TB, ηπατίτιδες

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment
Viral Hepatitis	HAV screen	+		As indicated	Screen if ongoing risk (e.g. MSM); vaccinate if non-immune
	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
	HEV screen			As indicated	Screen persons with symptoms consistent with acute hepatitis, unexplained flares of aminotrans-ferases or elevated liver function tests, neuralgic amyotrophy, Guillain-Barré, encephalitis or protein-uria. Include anti-HEV IgG and IgM and NAAT for HEV-RNA in blood and if possible in stool
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
	PPD	+			
	IGRA in selected high-risk populations (if available)	+			

screening για άλλες συλλοιμώξεις

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment
Others	Varicella zoster virus serology	+			Offer vaccination where indicated
	Measles/Rubella serology	+			Offer vaccination where indicated
	Toxoplasmosis serology	+			
	CMV serology	+			
	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. Schis-tosoma serology)	+/-			Screen according to travel history/origin
	Influenza virus	+		Annual	In all PLWH, see Vaccination
	Streptococcus pneumoniae	+			No recommendations available regarding the need for a booster dose, see Vaccination
	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
	SARS-CoV-2				In a pandemic situation, vaccinate irrespective of CD4 count and HIV-VL according to national Guidelines

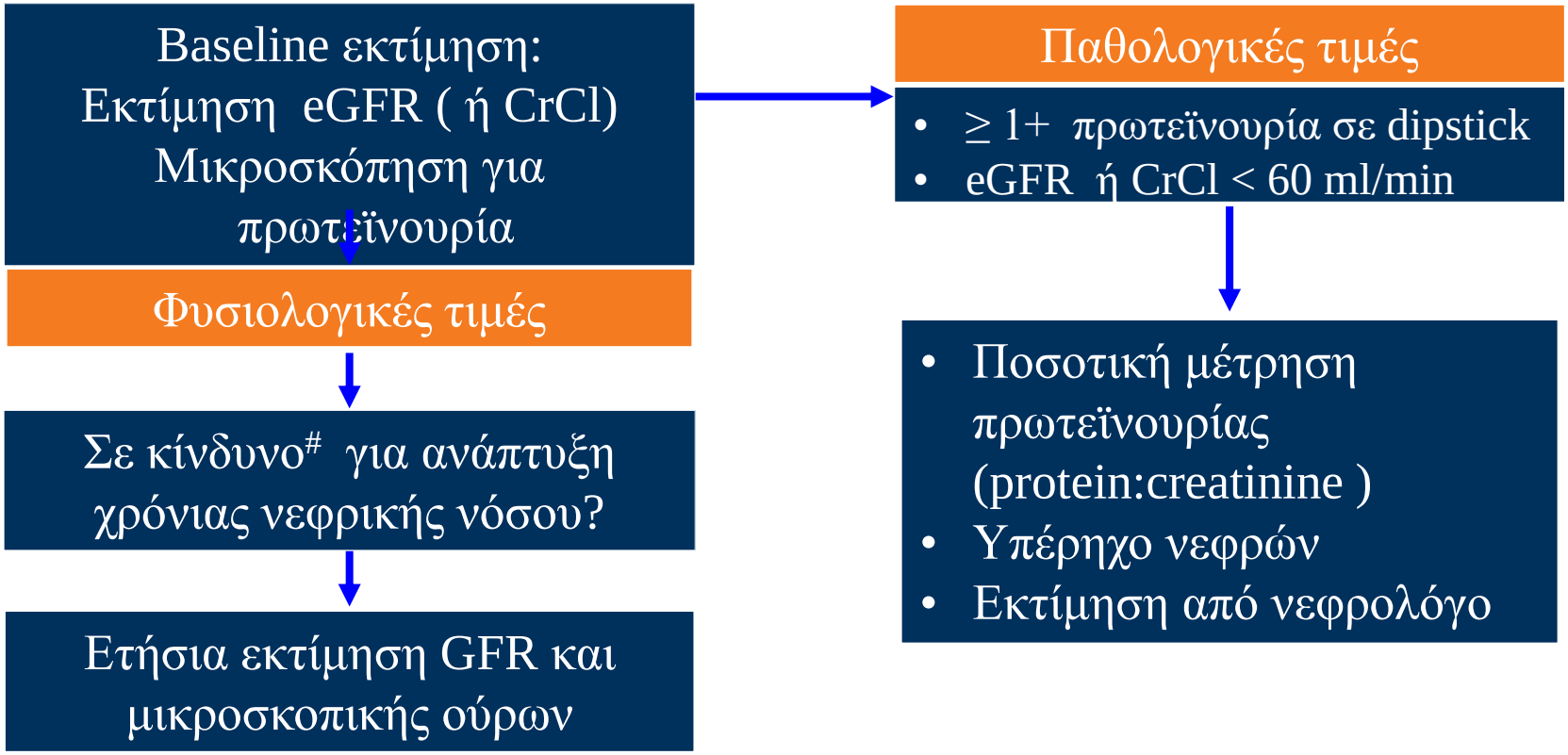
Έλεγχος για συννοσηρότητες (1)

	Assessment	At HIV diagnosis	Prior to starting ART	Follow-up frequency	Comment
CO-MORBIDITIES					
Haematology	FBC	+	+	3-12 months	
	Haemoglobinopathies	+			Screen at risk persons
	G6PD	+			Screen at risk persons
Body Composition	Body-mass index	+	+	Annual	
Cardiovascular Disease	Risk assessment (Framingham score[iii])	+	+	Annual	Should be performed in all men > 40 years and women > 50 years without CVD
	ECG	+	+/-	As indicated	Consider baseline ECG prior to starting ARVs associated with potential conduction problems
Hypertension	Blood pressure	+	+	Annual	
Lipids	TC, HDL-c, LDL-c, TG[iv]	+	+	Annual	Repeat in fasting state if used for medical intervention (i.e. ≥ 8h without caloric intake)
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)
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
	Spirometry			As indicated	Spirometry should be performed in all symptomatic persons[xii]
Liver Disease	Risk assessment[v]	+	+	Annual	
	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)
	Hepatic ultrasound			6 months	Persons with liver cirrhosis[xiii]

Έλεγχος για συννοσηρότητες (2)

Renal Disease	Risk assessment[vi]	+	+	Annual	More frequent monitoring if eGFR < 90 mL/min, CKD risk factors present[vi] and/or prior to starting and on treatment with nephrotoxic drugs[ix]
	eGFR (CKD-EPI)[vii]	+	+	3-12 months	
	Urine dipstick analysis[viii]	+	+	Annual	Every 6 months if eGFR < 60 mL/min or rapid decline in eGFR, if proteinuria ≥ 1+ and/or eGFR < 60 mL/min perform UA/C or UP/C[viii]
Bone Disease	Bone profile: calcium, PO_4, ALP	+	+	6-12 months	
	Risk assessment[x] (FRAX®[xi] in persons > 40 years)	+	+	2 years	Consider DXA in specific persons, see page 71 for details
Vitamin D	25(OH) vitamin D	+		As indicated	Screen at risk persons
Cognitive impairment	Screening questionnaire	+	+	As indicated	Screen all persons without highly confounding conditions. If abnormal or symptomatic, see algorithm page 104 for further assessment.
Anxiety	Questionnaire	±	±	As indicated	Screen at risk persons
Depression	Questionnaire	+	+	As indicated	Screen at risk persons
Older PLWH	Polypharmacy review			Annual	Perform periodic medicines review
	Frailty			Annual	Screen with Frail Scale, Walking Speed or short physical performance battery
	Falls			Annual	
Cancer	Mammography			1-3 years	Women 50-74 years
	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-foetoprotein			6 months	Controversial; persons with cirrhosis and persons with HBV co-infection at high risk of HCC[xiii]
	Prostate cancer (PSA)			1-2 years	Men > 50 years with a life expectancy >10 years
	Others			As indicated	Lung cancer and colorectal cancer screening according to local screening programmes

Screening για νεφρική νόσο σε HIV (+) ασθενείς



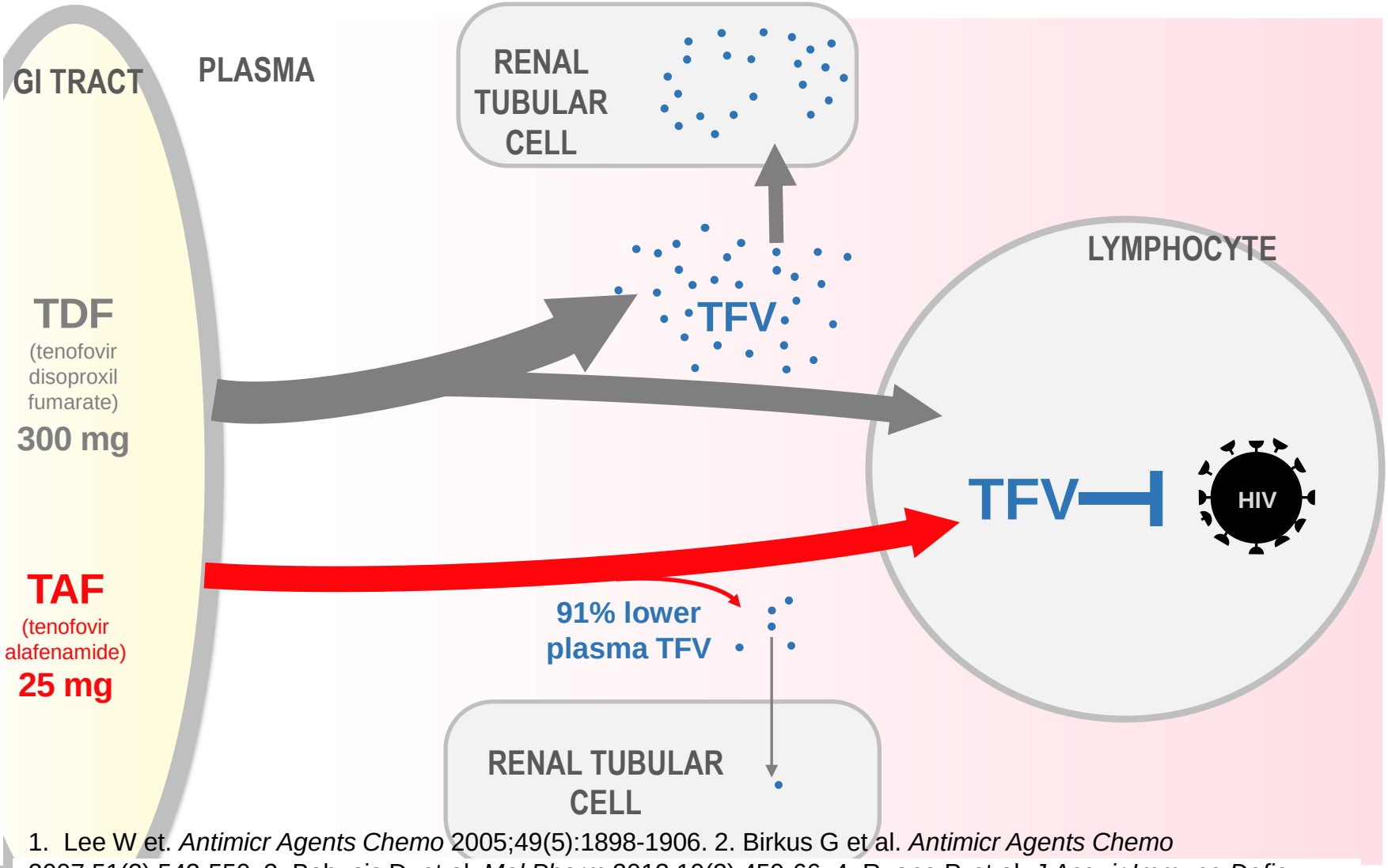
 # παράγοντες κινδύνου για ΧΝΝ: έγχρωμος, Σ.Δ., υπέρταση, HCV, CD4 counts < 200 cells/mm³, HIV RNA > 4000 copies/ml

Gupta SK, et al. Clin Infect Dis 2005; 40:1559–158

***Infectious Diseases Society of America**

The Development of TAF

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



1. Lee W et. *Antimicr Agents Chemo* 2005;49(5):1898-1906. 2. Birkus G et al. *Antimicr 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

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/µL)
- Consider repeating vaccinations performed at CD4 count < 200 cells/µL (< 14%) or unsuppressed viraemia once adequate immune reconstitution is achieved (HIV-VL undetectable and CD4 count > 200 cells/µL)
- 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/µL or unsuppressed viremia (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/µL (14%) and/or AIDS.
    Impaired protection after vaccination with unsuppressed viraemia
  - **Oral live typhoid**
    Contraindicated if CD4 count < 200 cells/µL (14%): give inactivated parenteral polysaccharide vaccine. Preferred if CD4 count > 200 cells/µL (> 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.
Neisseria meningitidis	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/μL) 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 μg (διπλή δόση)**

Απώλεια προστατευτικών αντισωμάτων έως 30% /έτος

Soriano et al, AIDS 2005, 19:221-240

Tenaldi et al, Clin Inf Dis 2004'38:1478-1484.

Vaccination

Streptococcus pneumoniae	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.
Varicella Zoster Virus (VZV)	Vaccinate if seronegative
Yellow Fever Virus	Contraindicated if past or current haematological neoplasia or thymus affection (thymoma, resection/radiation). Booster q 10 years.

Drug-drug Interactions between Antimalarial Drugs and ARVs

EACS European AIDS Clinical Society

	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]	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	mefloquine	↑[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	↔	↔

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	
	R5 tropism (if available)		+/-		Screen if considering R5 antagonist in regimen
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/μL(II) 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

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

ΕΛΕΓΧΟΣ ΓΟΝΟΤΥΠΙΚΗΣ ΑΝΤΟΧΗΣ ΣΕ ΑΝΤΙΡΕΤΡΟΪΚΗ ΘΕΡΑΠΕΙΑ

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

ΑΡΙΘΜΟΣ ΑΤΟΜΟΥ: HIVRES -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.

Φάρμακο	Χαρακτηρισμός	Φάρμακο	Χαρακτηρισμός	Φάρμακο	Χαρακτηρισμός	Φάρμακο	Χαρακτηρισμός
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.

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

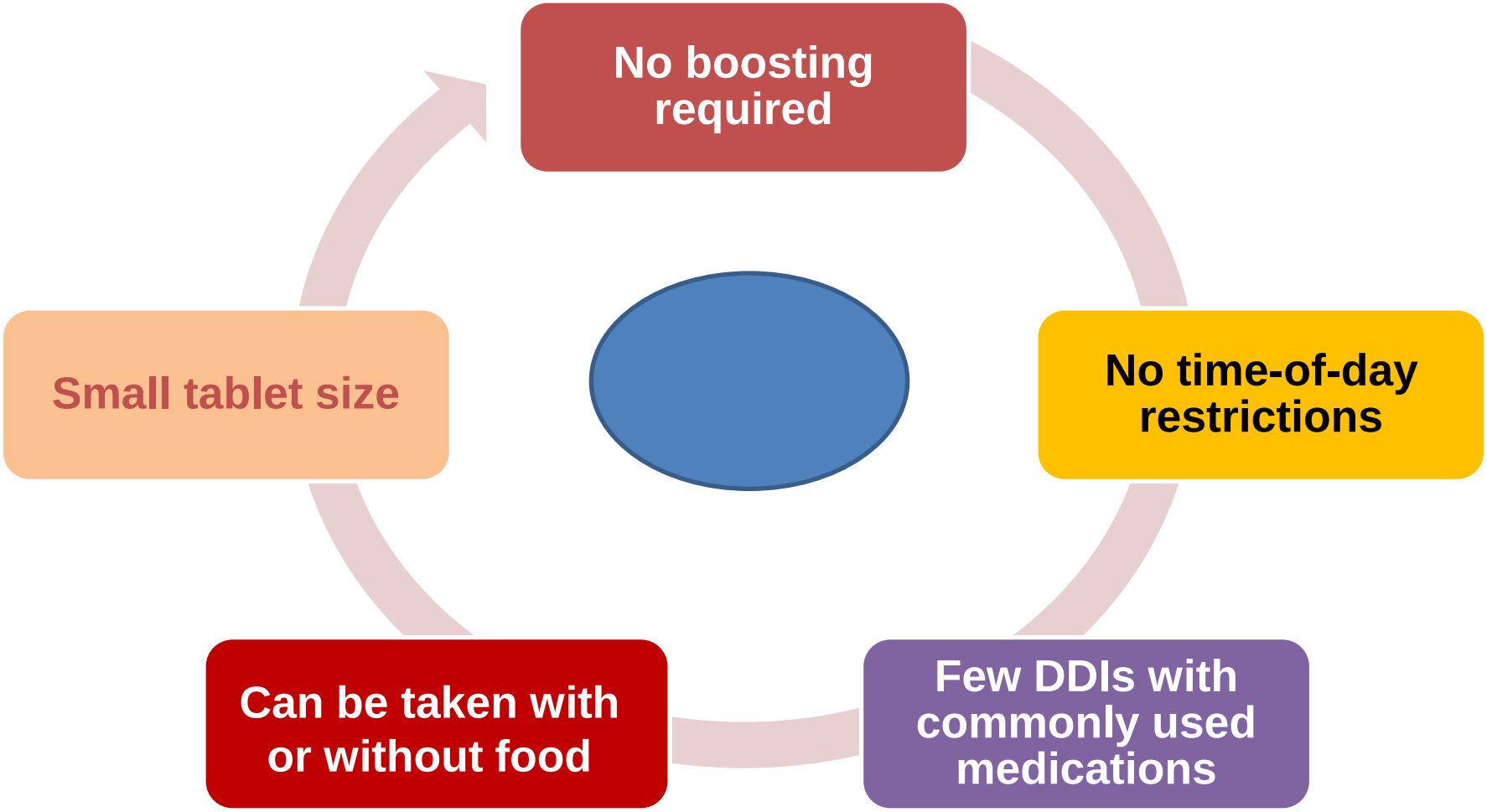
Νεοδιαγνωσθείς HIV ασθενής

Συγχορηγούμενα φάρμακα?
Συννοσηρότητες
Συλλοιμώξεις (HCV, HBV, TB)?
Κληρονομικό ιστορικό?
Έξεις, συνήθειες?
Ψυχιατρική κατάσταση?
Ετοιμότητα για έναρξη, συμμόρφωση στην HAART?

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



Πότε αρχίζουμε αγωγή?

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

European AIDS Clinical Society

Condition	Current CD4+ lymphocyte count [ii,iii]	
	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

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 AUGUST 27, 2015 VOL. 373 NO. 9

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

ART is recommended in all adult PLWH, irrespective of CD4 counts[i]

EACS
European AIDS Clinical Society

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 123, 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. Genotypic testing should not delay ART initiation (it may be re-adjusted after genotypic test results)
- 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, including a PI/b or second generation INSTI
- 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

Undetectable = Untransmittable

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

Professor Alison Rodger

Short report

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 Kanike[1], Richard Bedell[1], Isabel Mayuni[1], Ruth Manyera[1], William Mlotha[4],

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.

Clinical Infectious Diseases® 2018;66(7):1027–34

Clinical Infectious Diseases

MAJOR ARTICLE

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. Hessol[2,4]

[1]HIV Epidemiology Section, San Francisco Department of Public Health, and Departments of [2]Medicine, [3]Epidemiology and Biostatistics, and [4]Clinical Pharmacy, University of California, and [5]Bridge 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** , same-day initiation of ART at HIV diagnosis in 2012 , and **scale-up of HIV PrEP** to prevent HIV acquisition for high risk HIV-negative adults beginning in 2013

Clinical Infectious Diseases

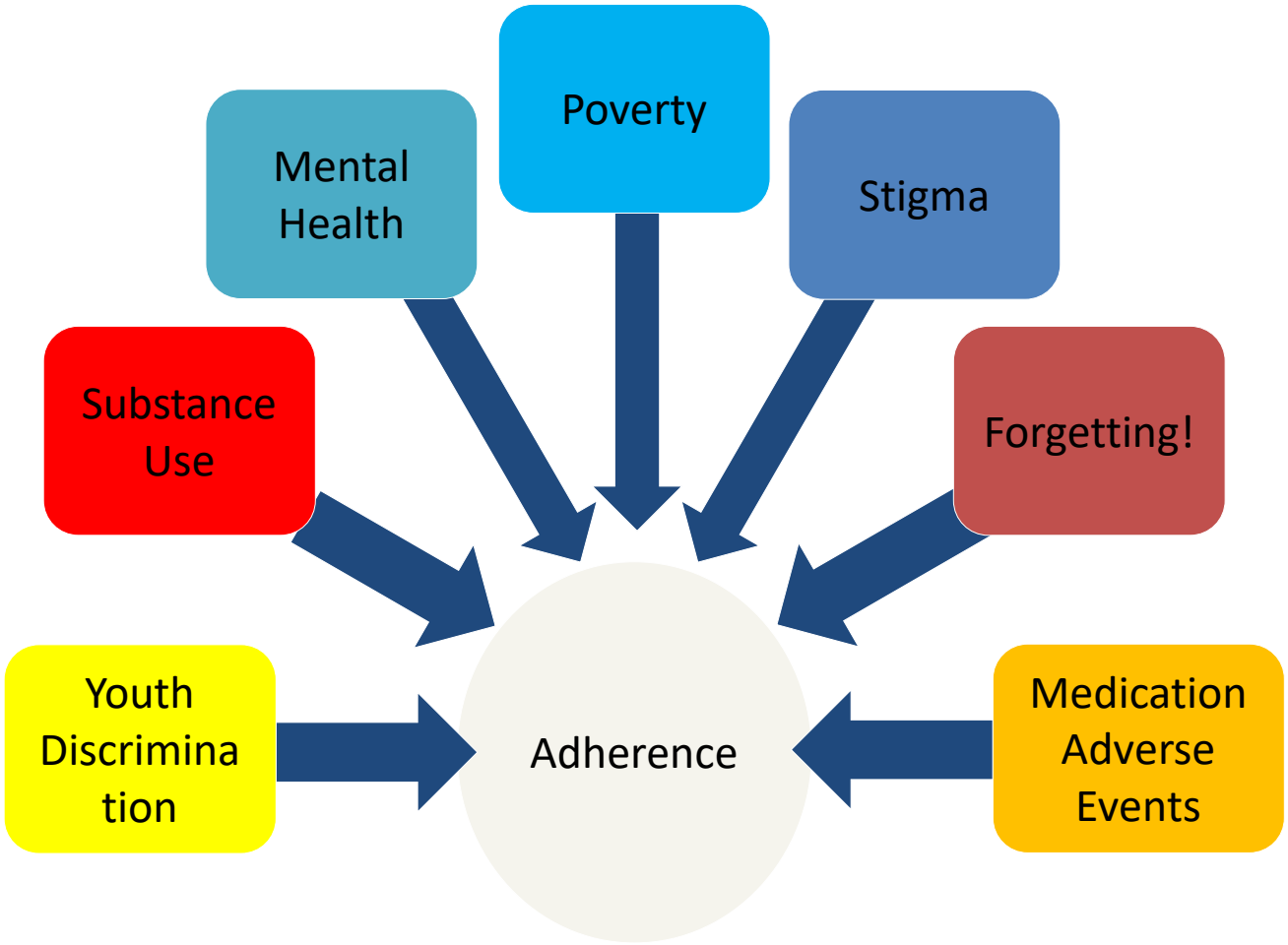
EDITORIAL COMMENTARY

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;

Assessing Barriers to Care and Treatment



When to Start ART

Guideline	Recommendation for Rapid ART	Recommendation for Rapid ART in Patients With OIs
EACS[1]	**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**	In persons with OIs, ART initiation may have to be deferred; **initiate ART as soon as possible and within 2 wk of starting treatment for the OI**
US DHHS	**Initiate ART immediately (or as soon as possible)** after HIV diagnosis to increase the uptake of ART and linkage to care, decrease the time to viral suppression for individual patients, and improve the rate of virologic suppression among persons with HIV	**When no effective therapy exists for the OI, initiate ART without delay[2]**; *Pneumocystis jirovecii*: ART should be initiated in patients, when possible, within 2 wk of *Pneumocystis jirovecii* diagnosis[3]
IAS-USA[4]	**Start ART as soon as possible,** including immediately after diagnosis, **if patient is ready**	**Initiation of ART is recommended within 2 wk of initiation of treatment for most OIs**

1. EACS Guidelines. v11 October 2021. 2. DHHS ART Guidelines. August 2021.
3. DHHS OI Guidelines. March 2019. 4. Saag. JAMA. 2020;324:1651.

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). Δεν συστήνονται στεροειδή για πρόληψη IRIs

- ✓ Για έναρξη ART σε συλλοίμωξη με **TB:** συστήνεται έναρξη εντός 2 εβδομάδων ανεξαρτήτως CD4 . Σε TB μηνιγγίτιδα μπορεί να καθυστερήσει. Λόγω κινδύνου IRIS με έναρξηART σε ↓ CD4, συστήνεται πρεδνιζόνη για 4 βδομάδες (40 mg 1x1 για 14 ημερ, και στην συνέχεια 20 mg 1χ1) σε ασθενείς με CD4 < 100 για αποφυγή παράδοξης επιδείνωσης.

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

Recommended First-line ART Regimens 2020/21

ARV	EACS[1]	US DHHS[2]	IAS-USA[3]	WHO[4]
DTG	DTG + TAF/FTC or TDF/FTC or TDF/3TC	DTG + (TAF or TDF) + (FTC or 3TC)	DTG + TAF/FTC or TDF/FTC or TDF/3TC	DTG + TDF + 3TC (or FTC)
DTG	DTG + ABC/3TC† DTG/ABC/3TC†	DTG/ABC/3TC†	--	--
BIC	BIC/TAF/FTC	BIC/TAF/FTC	BIC/TAF/FTC	
RAL	RAL + TAF/FTC or TDF/FTC or TDF/3TC	--	--	--
DTG	DTG/3TC*	DTG/3TC*	DTG/3TC*	
DOR	DOR + TAF/FTC or TDF/FTC or TDF/3TC DOR/TDF/3TC	--	--	--

*DTG/3TC: Avoid in patients with HBV and HIV-1 RNA >500,000 c/mL; in some guidelines, avoid in those starting ART before results of GT resistance testing are available or with CD4+ cell count <200/µL. †If patient is HLA-B*5701 negative.

1. eacsociety.org/media/final2021eacsguidelinesv11.0_oct2021.pdf
2. clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/AdultandAdolescentGL.pdf
3. jamanetwork.com/journals/jama/fullarticle/2771873 4.who.int/publications/i/item/9789240031593

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

Selecting Initial ART: Factors to Consider

Initial characteristics to consider in all persons with HIV

- Pretreatment HIV-1 RNA
- Pretreatment CD4+ cell count
- HIV genotype results
- HLA-B*5701 status
- Individual preferences
- Anticipated adherence
- ART timing postdiagnosis

Regimen-specific considerations

- Regimen's barrier to resistance
- Potential AEs and drug toxicities, including risk of development of comorbid diseases
- Known/potential DDIs
- Convenience
- Cost and access

Presence of specific conditions/ factors

- Comorbid conditions
- Pregnancy or wish to become pregnant
- Coinfections: HBV, HCV, TB

Discuss ART options with patients to determine their needs and extent to which they want to be involved in decision-making

clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/AdultandAdolescentGL.pdf

Πώς επιλέγω HAART?

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

What to Start in Pregnancy: US DHHS Guidelines Feb 2021

Two NRTIs

ABC/3TC or

TDF/FTC or TDF/3TC

TAF/FTC or AZT/3TC (*alternative NRTIs*)

Plus

Integrase inhibitor

Raltegravir (twice daily) or

Dolutegravir (*Preferred ARV throughout pregnancy and for those who are trying to conceive*

or

Protease inhibitor

Darunavir/ritonavir (twice daily)

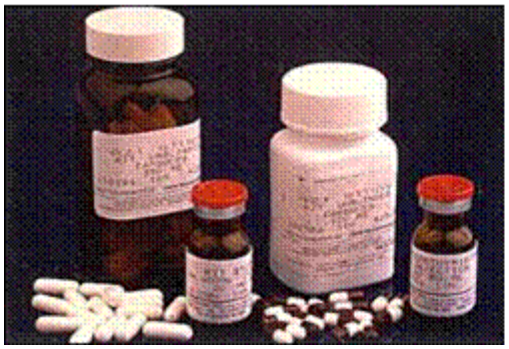
or Atazanavir/ritonavir

Bictegravir (insufficient data)
Elvitegravir/cobi (PK concerns)
DRV/cobi (PK concerns)
ATV/cobi (PK concerns)
DOR (insufficient data)
2-drug regimens not recommended

DHHS Perinatal Guidelines. February 2021.

Ιστορικές διαστάσεις της αντιρετροϊικής θεραπείας: Ελάττωση του φορτίου χαπιών

Εποχή πριν τη HAART

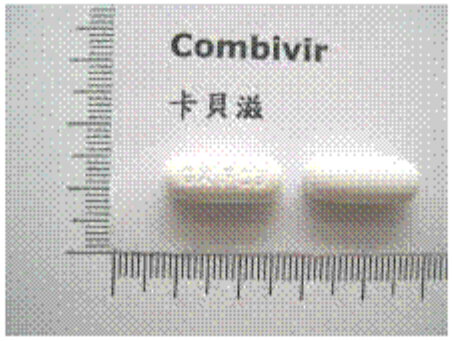


Υψηλού επιπέδου σχήματα πολλαπλών δόσεων ανά ημέρα

AZT (1987)

Αρχικώς κάθε 4 ώρες, ημέρα + νύχτα

«Πρώιμη» εποχή HAART

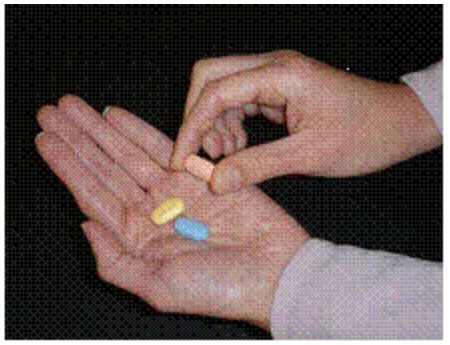


Σχήματα για κοινή χορήγηση, δύο φορές την ημέρα

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)

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 -AT

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.

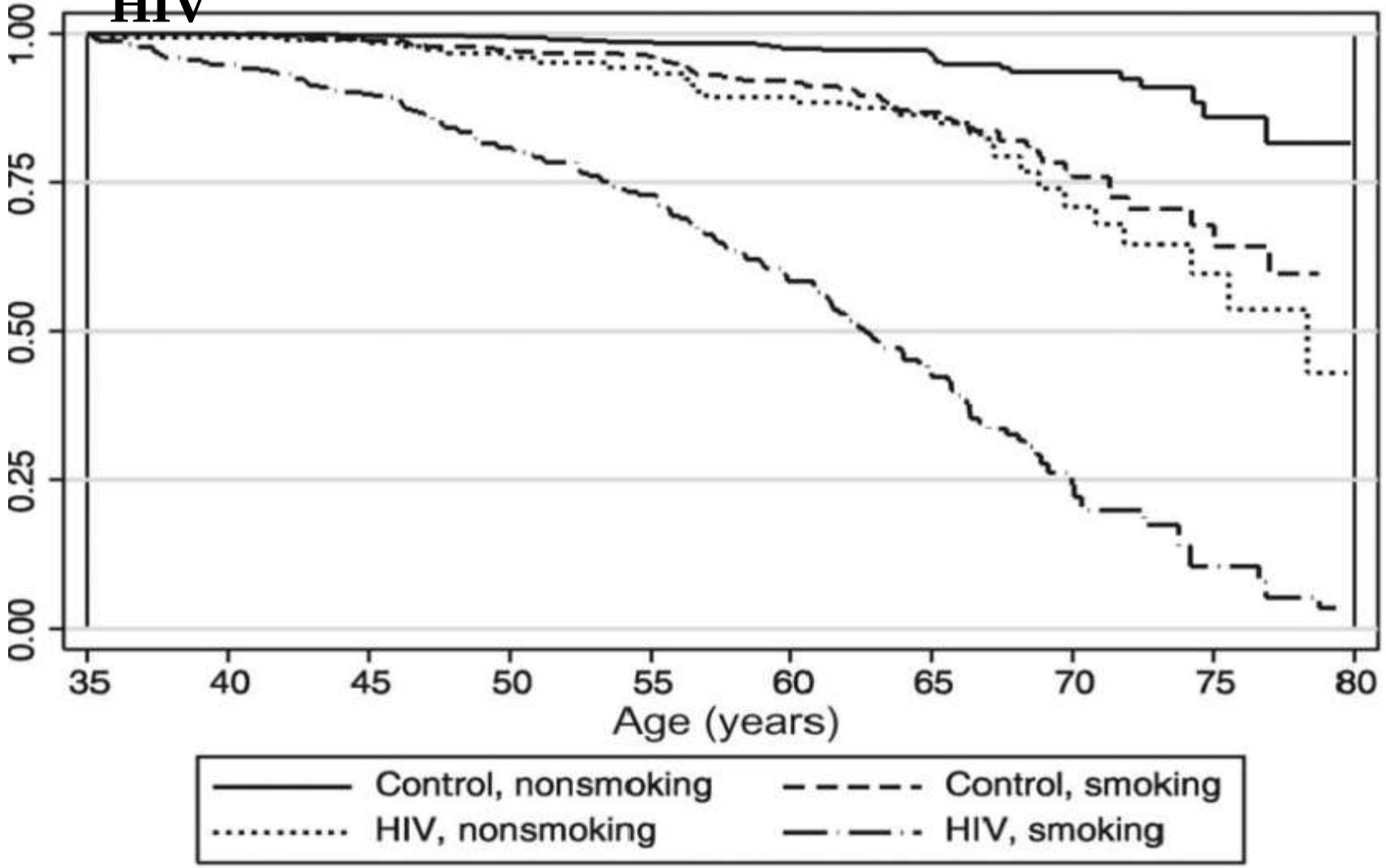
Wednesday, June 29, 2016

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 hav

Εκτός από τη HAART…

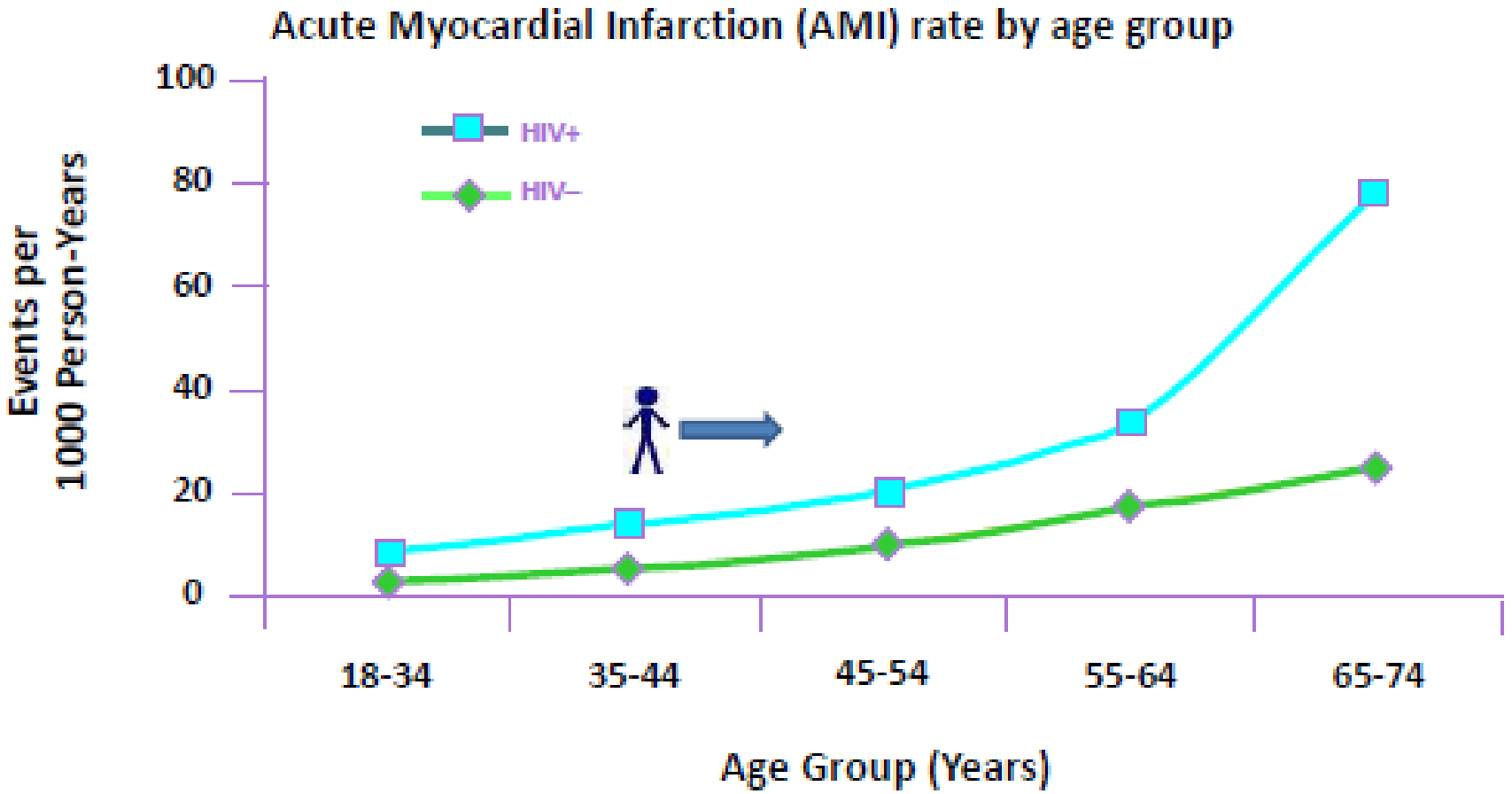
A **HIV-infected smokers lose more life-years to smoking than to HIV**



Helleberg et al. Clin Infect Dis. 2013;56(5):727–34

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.

Triant VA,et al. J Clin Endocrinol Metab. 2007;92:2506-2512.

Παράγοντες κινδύνου για καρδιαγγειακή νόσο

Μη μεταβλητοί

ηλικία
οικογενειακό ιστορικό
Εθνικότητα
φύλο

Μεταβλητοί

Κάπνισμα
υπέρταση
αυξημένα επίπεδα ολικής και LDL-C
χαμηλά επίπεδα HDL-C
σακχαρώδης διαβήτης
παχυσαρκία
Έλλειψη σωματικής άσκησης

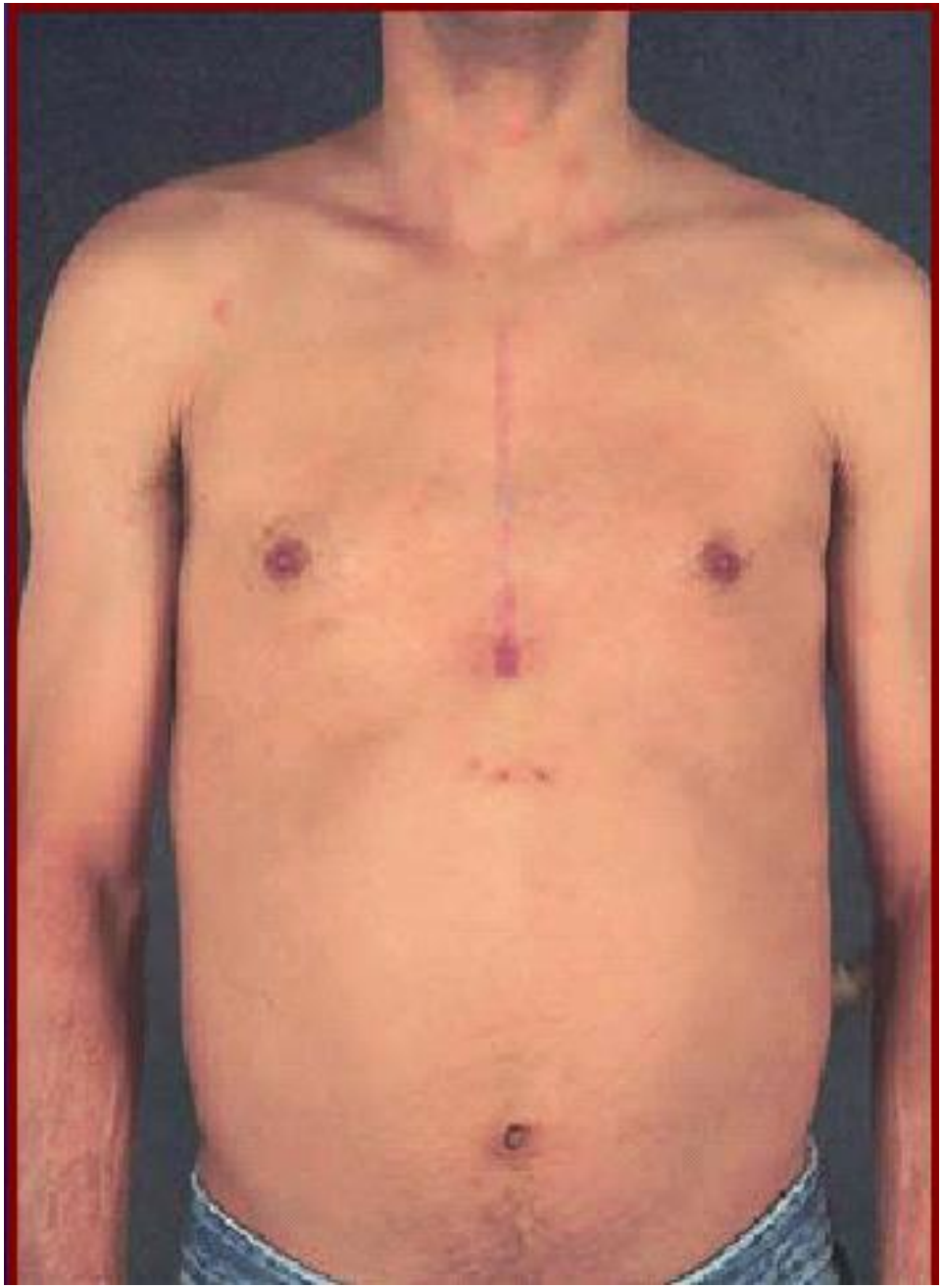
Άλλοι παράγοντες δυνητικά σχετιζόμενοι με την HIV

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

Με κόκκινα γράμματα, οι σημαντικοί παράγοντες

☐ δυνητικά συσχετιζόμενοι με την HIV και την HAART

Hackam *et al. JAMA* 2003; 290: 932–940



Artery Research (2009) xx, 1–7

available at www.sciencedirect.com

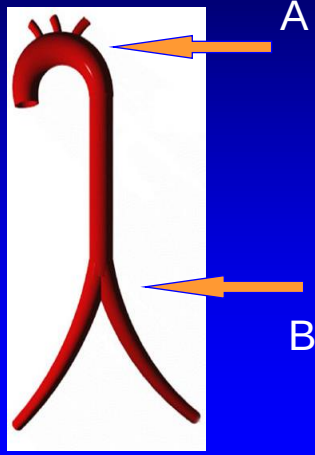
ScienceDirect

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], DimitrisTsiachris [a], Ilias Mariolis [b], Konstantinos Aznaouridis [a], Nikolaos Ioakeimidis [a], Athanasios J. Archimandritis [b], Christodoulos Stefanadis [a]

Pulse Wave Velocity (PWV)



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

Non-invasive evaluation

DOI: 10.1111/j.1468-1293.2011.00835.x
HIV Medicine (2011), 12, 594–601

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 Christoforatou,[1] A Miliou,[1] K Aznaouridis[1] and C Stefanadis[1]

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.

ΑΕ' . ... . Βλ.

Παρμεδυότερα έλεγχα του 8.6.2016

ΓΙΑ ΤΟΝ ΔΙΑΒΗΤΗ

Ινσουλίνες

- Tresiba, 98 μον. μεσημεριανά
- Novorapid, 8-20 μονάδες x3
- Janumet x2

ΓΙΑ ΤΗΝ ΥΠΕΡΤΑΣΗ

- Coversyl, 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

- Ursofalk x4

- Plavix x1

Επί αϋπνίας (περιστασιακά)

- melatonine, 2 mg
- trittico

ΓΙΑ ΤΗΝ ΔΙΑΒΗΤΙΚΗ ΓΑΣΤΡΟΠΑΡΕΣΗ

(περιστασιακά)

- X-Prep ή
- Laxilax ή
- Importal (σιρόπι) ή
- Dulcolax

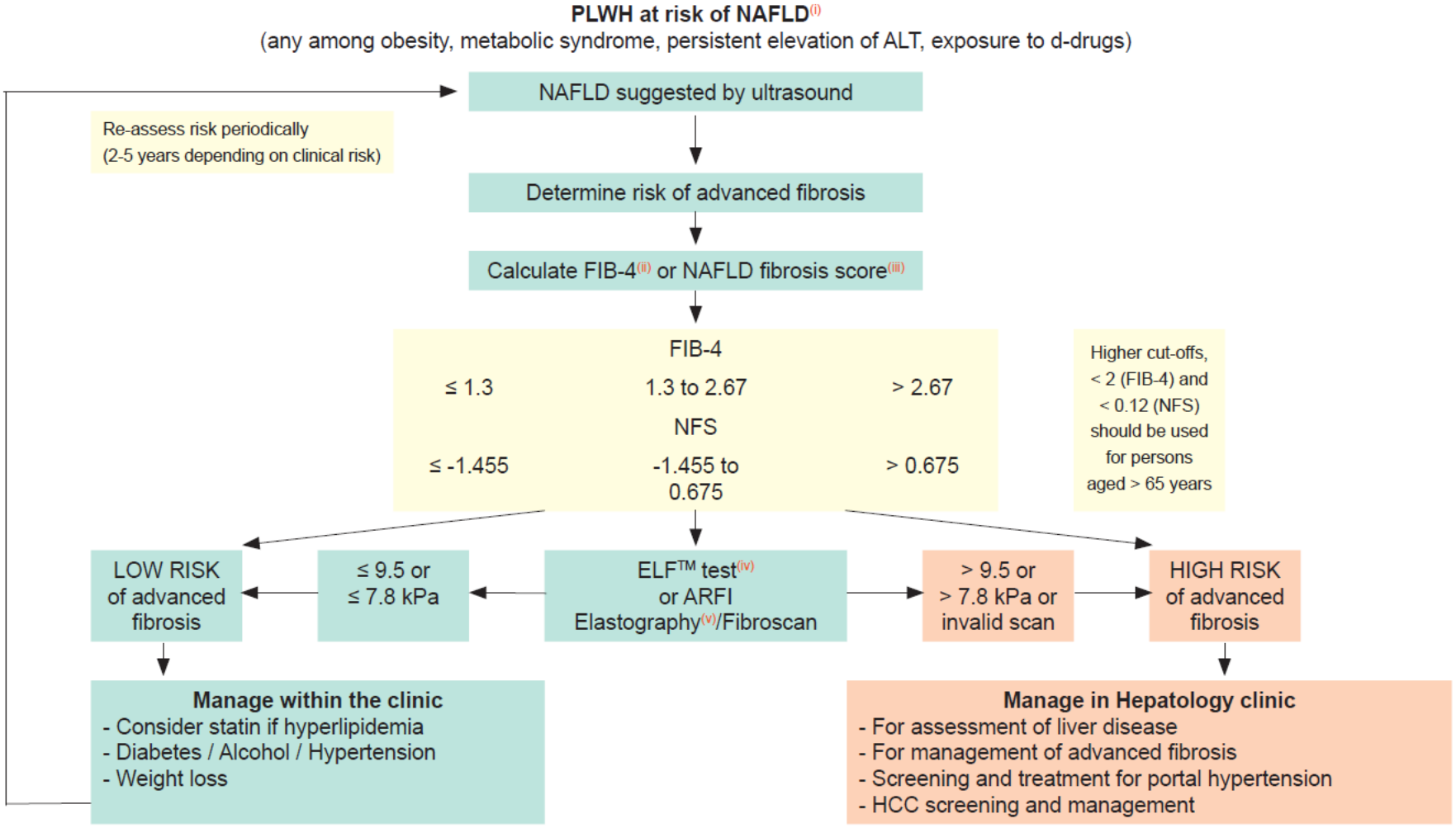
HAART και αντιϋπερτασικά

Antihypertensives		ATV/r	DRV/c	DRV/r	LPV/r	EFV	ETV	NVP	RPV	MVC	DTG	EVG/c	RAL	ABC	FTC	3TC	TDF	ZDV
ACE inhibitors	cilazapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	enalapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	lisinopril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	perindopril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	quinapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	ramipril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	trandolapril	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Angiotensin antagonists	candesartan	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	irbesartan	↓	↔	↓	↓	↑	↑	↔	↔	↔	↔	↓	↔	↔	↔	↔	↔	↔
	losartan	↓[a]	↔	↓[a]	↓[a]	↑[b]	↑[b]	↔	↔	↔	↔	↓[a]	↔	↔	↔	↔	↔	↔
	olmesartan	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	telmisartan	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	valsartan	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
β blockers	atenolol	↔[d]	↔	↔	↔[d]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	bisoprolol	↑[d]	↑	↑	↑[d]	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	carvedilol	↑↓[d]	↑	↑↓	↑↓[d]	↑↓	↑↓	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	metoprolol	↑[d]	↑	↑	↑[d]	↔	↔	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	propranolol	↑[d]	↑	↑	↑[d]	↔	↔	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
Calcium channel blockers	amlodipine	↑[c]	↑	↑	↑[e]	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	diltiazem	↑[c]	↑	↑	↑[e]	↓69%	↓E	↓	E	E	↔	↑	↔	↔	↔	↔	↔	↔
	felodipine	↑[c]	↑	↑	↑[e]	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	lacidipine	↑[c]	↑	↑	↑[e]	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	lercanidipine	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	nicardipine	↑[c]	↑	↑	↑[e]	↓	↓E	↓	E	E	↔	↑	↔	↔	↔	↔	↔	↔
	nifedipine	↑[c]	↑	↑	↑[e]	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	nisoldipine	↑[c]	↑	↑	↑[e]	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	verapamil	↑[c]	↑	↑	↑[e]	↓	↓E	↓	E	E	↔	↑	↔	↔	↔	↔	↔	↔
Diuretics	amiloride	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	bendroflumethiazide	?	?	?	?	?	?	?	↔	↔	↔	?	↔	↔	↔	↔	↔	↔
	chlortalidone	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	furosemide	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	E	↔
	indapamide	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	torasemide	↓	↔	↓	↓	↑	↑	↔	↔	↔	↔	↓	↔	↔	↔	↔	↔	↔
Others	doxazosin	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	spironolactone	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔

Στατίνες, αντιυπερτασικά: Αλληλεπιδράσεις με HAART

	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
Cardiovascular drugs	atorvastatin	↑822%	↑	↑290%	↑	↑490%	↓43%	↓37%	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
	fluvastatin	↑	↑	↑	↔	↔	↑	↑	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
	pravastatin	↑	↑	↑	↑81%	↔	↓44%	↓	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
	rosuvastatin	↑242%	↑213%	↑93%	↑48%	↑107%	↔	↔	↔	↔	↔	↔	↑38%	↔	↔	↔	↔	↔	↔	↔
	simvastatin	↑	↑	↑	↑	↑	↓68%	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
	amlodipine	↑	↑	↑	↑	↑	↓	↓	↓	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
	diltiazem	↑	↑	↑	↑	↑	↓69%	↓E	↓	E	E	↔	↑	↔	↔	↔	↔	↔	↔	↔
	metoprolol	↑	↑	↑	↑	↑	↔	↔	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
	verapamil	↑	↑	↑	↑	↑	↓	↓E	↓	E	E	↔	↑	↔	↔	↔	↔	E	E	↔
	warfarin	↑	↑ or ↓	↑	↓	↓	↑ or ↓	↑	↑ or ↓	↔	↔	↔	↓	↔	↔	↔	↔	↔	↔	↔

Diagnostic Flow-chart to Assess and Monitor Disease Severity in Case of Suspected NAFLD and Metabolic Risk Factors



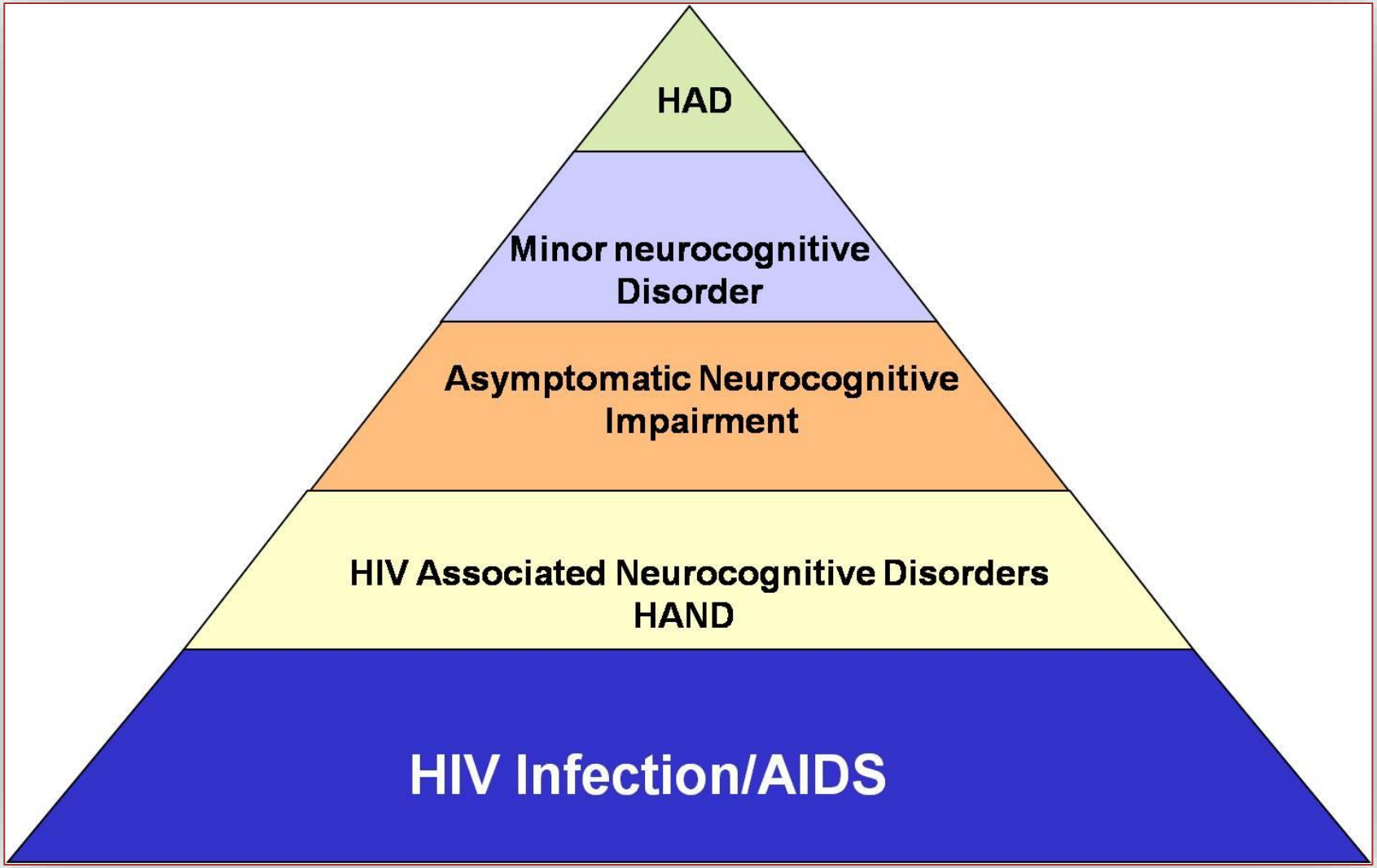
Prevalence and predictors of liver steatosis and fibrosis in unselected patients with HIV mono-infection

Rosa Lombardi, H. Sambatakou, I. Mariolis, D. Cokkinos , G. Papatheodoridis,E. Tsochatzis

Dig Liver Dis 2016

New York Magazine 11-9-09
The New HIV Scare

Hierachy of HAND



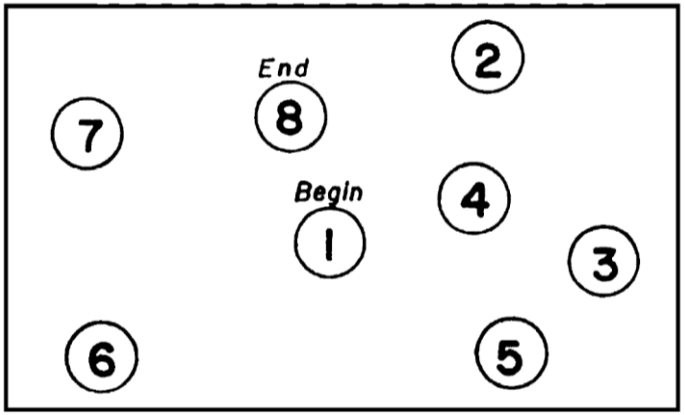
Brief Neuropsychological Testing

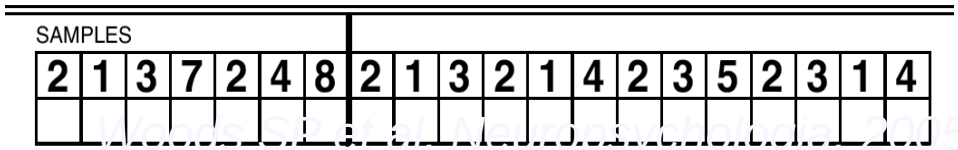
Brief Neurocognitive Scree

- Trailmaking A & B
- Digit Symbol Test
  - Sensitivity up to 65%
  - Specificity up to 84%

Grooved Pegboard

Computerized Testing





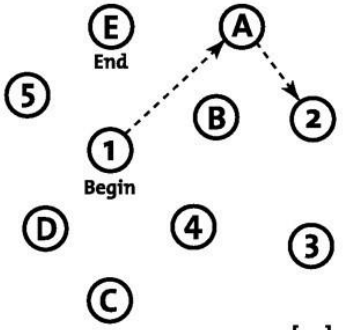
Woods SP, et al. Neuropsychologia. 2005; 43:1144-51

Ellis RJ, et al. J Neurovirol 2005; 11: 503-11

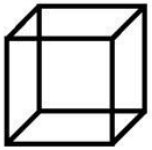
MONTREAL COGNITIVE ASSESSMENT (MOCA)

NAME :
Education : Date of birth :
Sex : DATE :

VISUOSPATIAL / EXECUTIVE



[ ]



Copy cube

[ ]

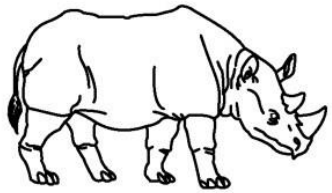
Draw CLOCK (Ten past eleven) (3 points)

[ ] Contour [ ] Numbers [ ] Hands

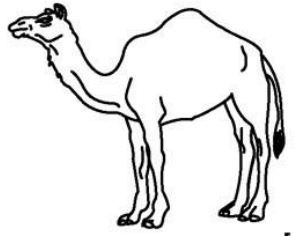
POINTS __/5

NAMING

[ ]



[ ]



[ ]

__/3

MEMORY

Read list of words, subject must repeat them. Do 2 trials. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial					
2nd trial					

No points

ATTENTION

Read list of digits (1 digit/ sec.). Subject has to repeat them in the forward order [ ] 2 1 8 5 4

Subject has to repeat them in the backward order [ ] 7 4 2

__/2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors

[ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B

__/1

Serial 7 subtraction starting at 100 [ ] 93 [ ] 86 [ ] 79 [ ] 72 [ ] 65

4 or 5 correct subtractions: **3 pts**, 2 or 3 correct: **2 pts**, 1 correct: **1 pt**, 0 correct: **0 pt**

__/3

LANGUAGE

Repeat : I only know that John is the one to help today. [ ]

The cat always hid under the couch when dogs were in the room. [ ]

__/2

Fluency / Name maximum number of words in one minute that begin with the letter F [ ] ____ (N ≥ 11 words)

__/1

ABSTRACTION

Similarity between e.g. banana - orange = fruit [ ] train – bicycle [ ] watch - ruler

__/2

DELAYED RECALL

	Has to recall words WITH NO CUE	FACE [ ]	VELVET [ ]	CHURCH [ ]	DAISY [ ]	RED [ ]	Points for UNCUED recall only
Optional	Category cue						
	Multiple choice cue						

__/5

ORIENTATION

[ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City

__/6

 Version 7.0 www.mocatest.org Normal ≥ 26 / 30 TOTAL __/30

PLWH self or their relatives complaining of, or care giver noting cognitive problems - without obvious confounding conditions[i]

→ Initial assessments[ii]

↓

Problems suspected

↓

Evaluation for depression and anxiety and possible treatment[iii]

↓

Problems persisting but depression or anxiety excluded or optimally managed

↓

NP examination[iv]

↓

Cognitive impairment[v]

↓

Neurological examination
Brain MRI
CSF examination[vi]

↓

Additional causes of cognitive impairment other than HIV excluded and/or managed

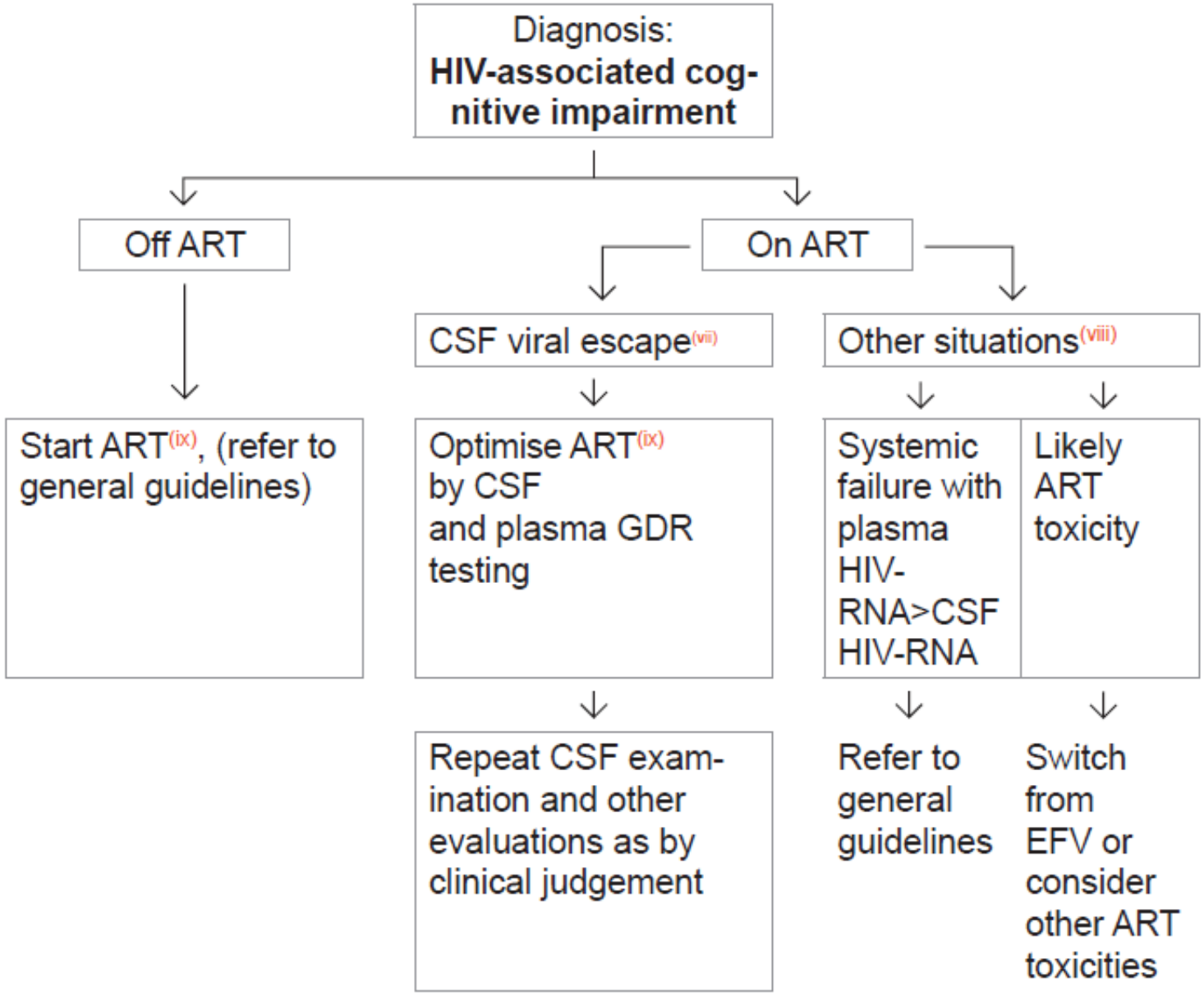
↓

ii **The following questions may be used to guide initial assessments (other screening assessments are acceptable)**

1. Do you experience frequent memory loss (e.g. do you forget the occurrence of special events even the more recent ones, appointments, etc.)?
2. Do you feel that you are slower when reasoning, planning activities, or solving problems?
3. Do you have major difficulties paying attention (e.g. to a conversation, book or film)?

Answering "yes" to one or more of these questions may suggest the presence of cognitive disorders, although not necessarily linked to HIV.

iii See Depression: Screening and Diagnosis and Anxiety Disorders: Screening and Diagnosis


Diagnosis:
HIV-associated cognitive impairment
Off ART
On ART
Start ART(ix), (refer to general guidelines)
CSF viral escape(vii)
Other situations(viii)
Optimise ART(ix) by CSF and plasma GDR testing
Systemic failure with plasma HIV-RNA>CSF HIV-RNA
Likely ART toxicity
Repeat CSF examination and other evaluations as by clinical judgement
Refer to general guidelines
Switch from EFV or consider other ART toxicities

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	↑↓?	↑↓?	↓39%	↑↓?	↔	↔	↔	↔	↔	↔	↑↓?	↔
	sertraline	↓	↑	↓49%	↓	↓39%	↓	↓	↔	↔	↔	↑	↔
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

UNIVERSITY OF LIVERPOOL

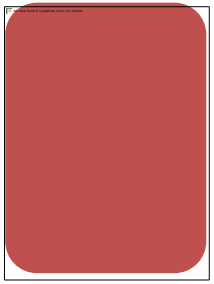
Interaction Report

Report ID: DE EY
Date Produced: 09 June 2016

Antiretroviral Treatment	Co-medications
Cobicistat (with ATV or DRV)	Clopidogrel
Darunavir	Diltiazem
	Fish oils
	Perindopril
	Rosuvastatin
	Trazodone

Treatment Goals: To Enable a Full and Good Life

Rapid and durable viral suppression



Managing comorbidities and prescribing

- Reducing polypharmacy
- Avoiding DDIs

Supporting mental health

- Assess and support mental health
- Assess chem use and alcohol, onward referrals

Identifying and managing

- Coinfections, STIs, and OIs
- Vaccinations

Preventing HIV transmission
Reducing stigma

Facilitating life goals

- Pregnancy
- Breastfeeding
- Trans health
- Adolescent transition

Adapted by Prof Orkin from: DHHS ART Guidelines. Living with HIV. December 2019. clinicalinfo.hiv.gov/en/guidelines/adult-and-adolescent-arv/treatment-goals?view=full

PLOS | ONE

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%** **α**ν 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

You know that question that goes through your mind when you take your generic drug?

Here's the answer.

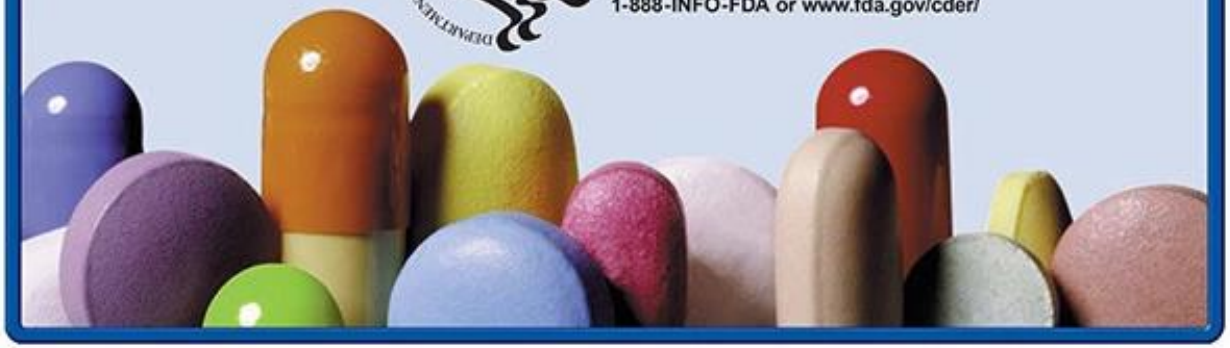
FDA ensures that all generic drugs are put through a rigorous, multi-step review process. From manufacturing to labeling, everything must meet FDA's high standards. We make it tough to become a generic drug in America so you can feel confident.

Generic Drugs: Safe. Effective. FDA Approved.

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

FDA
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

HIV positive

gay and bisexual men have the POWER to end the EPIDEMIC