the GOOD

the BAD

and the CLASSY

MOVEMBER IS BACK.

STARTS EVERYWHERE NOV. 1


World AIDS Day
December 1st


Jamaica
2163
3236
903


Because of... Every line crossed, Every mission accomplished, Every penny raised. Everyone's better off
money
3.57.03
TIMEX
money


FRANCE
TDK
FRA
Reebok
TDK
JAM
Daegu 2011
Jamaica
TDK
JAM
Daegu 2011
POLSKA

Available Antiretrovirals 2013

NRTIs

- Abacavir
- Didanosine
- Emtricitabine
- Lamivudine
- Stavudine
- Tenofovir
- Zidovudine

NNRTIs

- Efavirenz
- Nevirapine
- Etravirine
- Rilpivirine

Protease Inhibitors

- Atazanavir
- Darunavir
- Fos-Amprenavir
- Indinavir
- Lopinavir
- Nelfinavir
- Ritonavir
- Saquinavir
- Tipranavir

Other Classes

Fusion inhibitors

- Enfuvirtide

R5 Inhibitors

- Maraviroc

Integrase Inhibitors

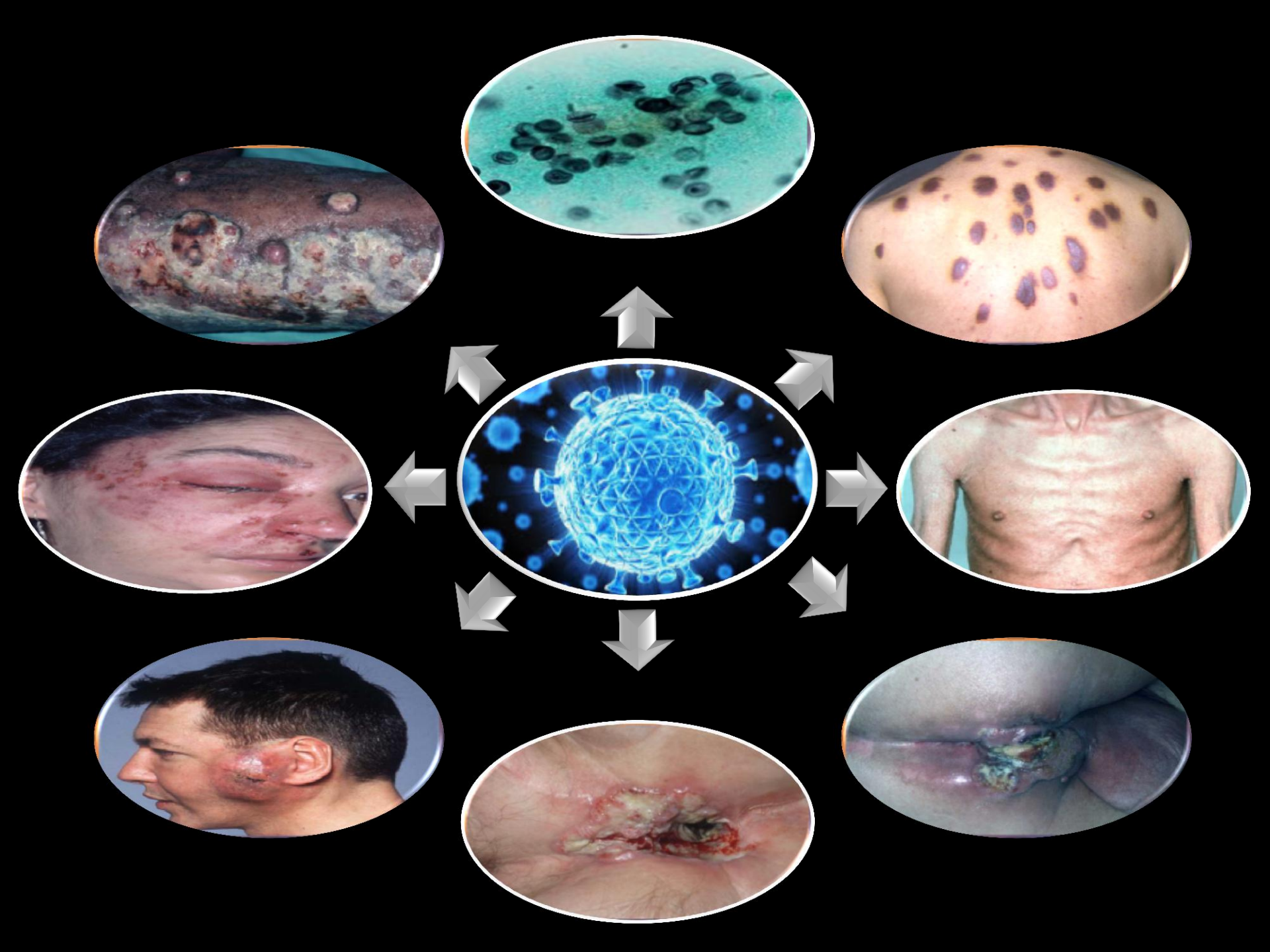
- Raltegravir
- Elvitegravir

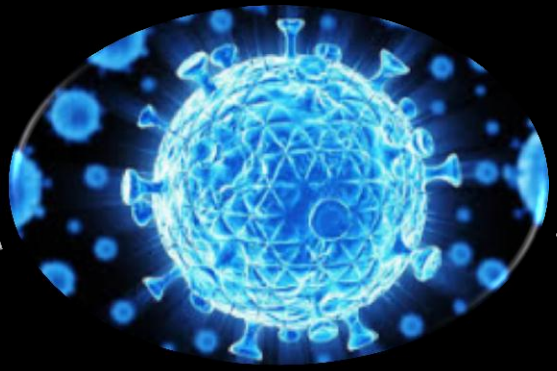
STR

- Atripla
- Eviplera
- Stribild

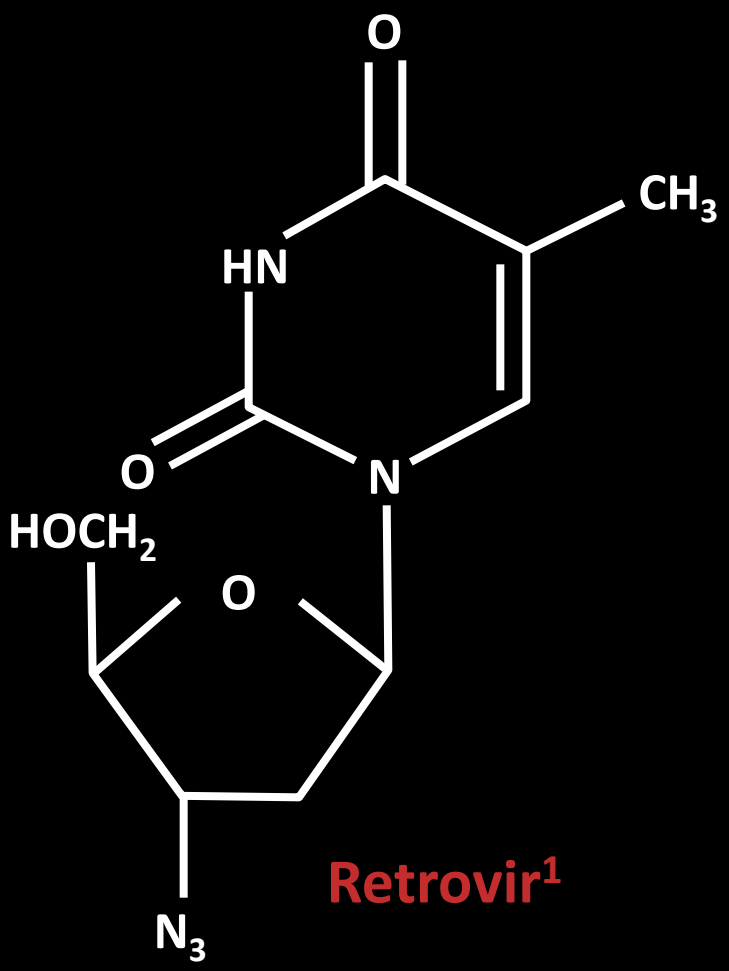

Survival
Efficacy
Tolerability


Survival
Efficacy
Tolerability

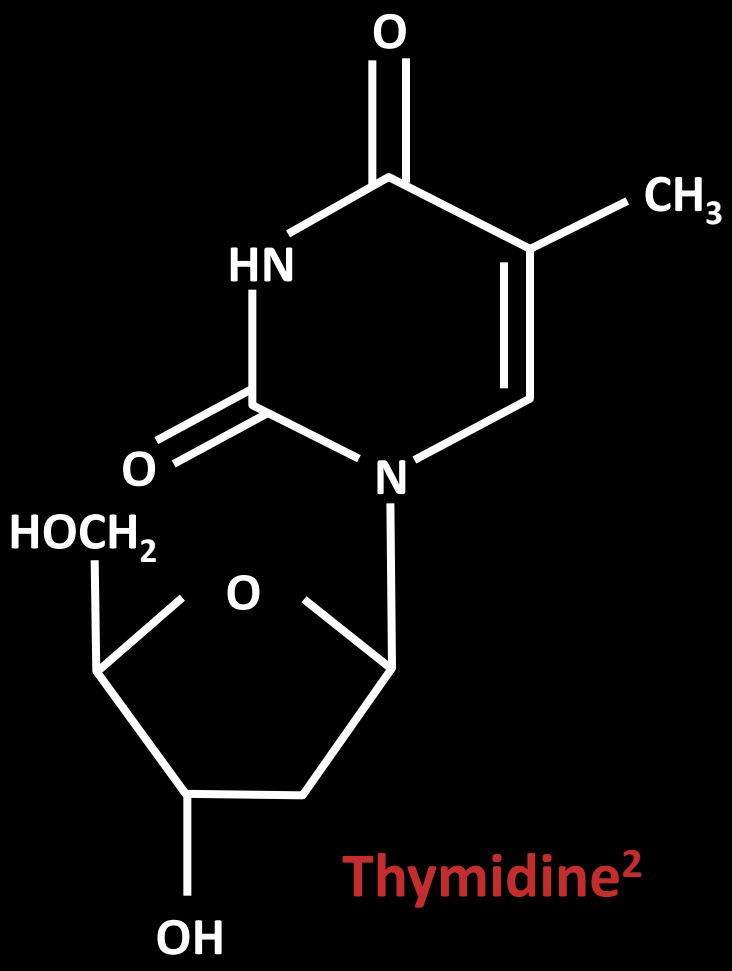





AIDS

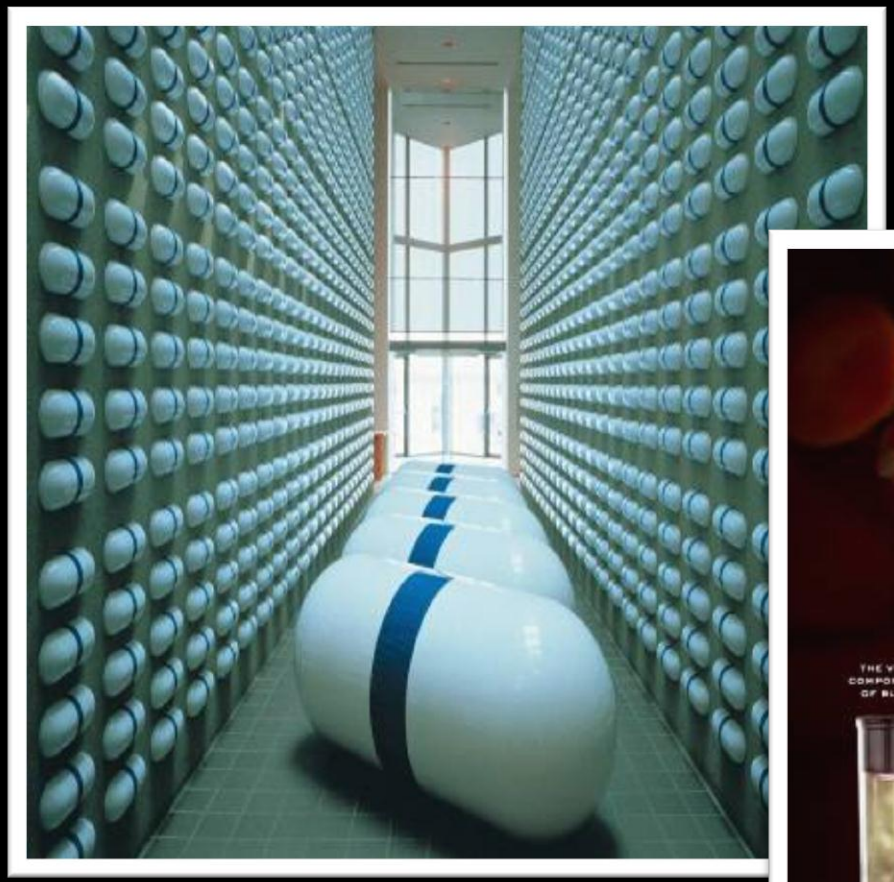


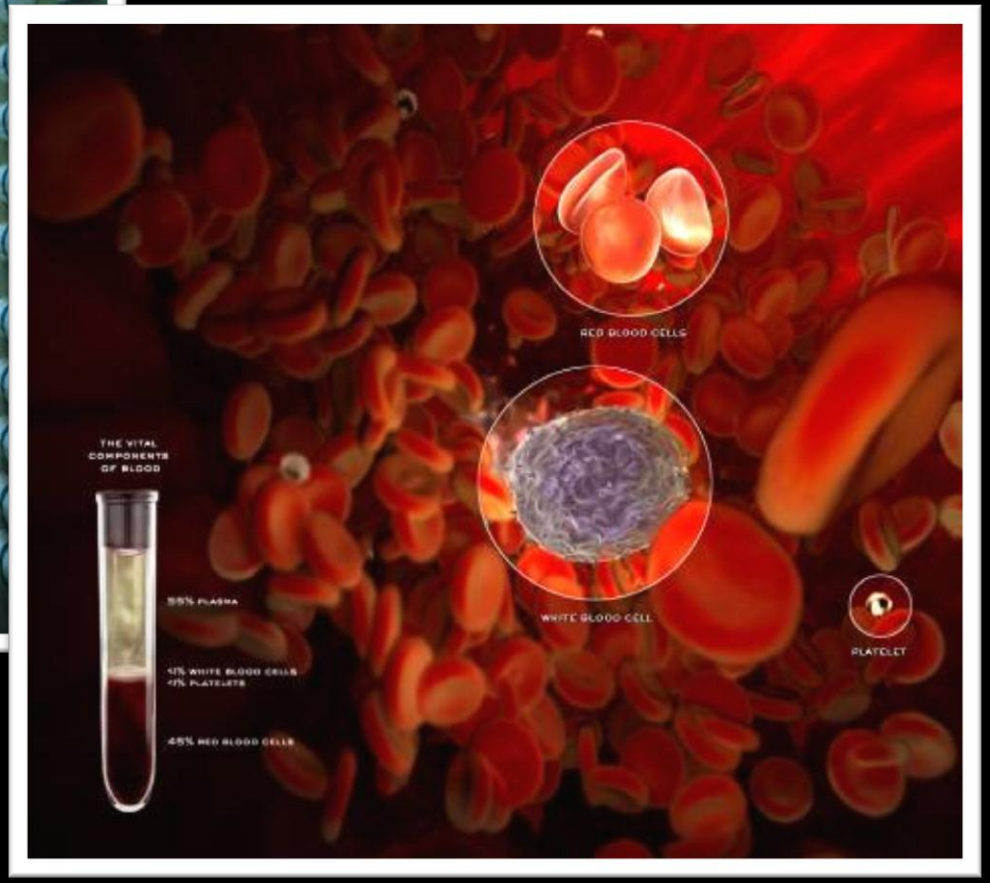
Retrovir[1]



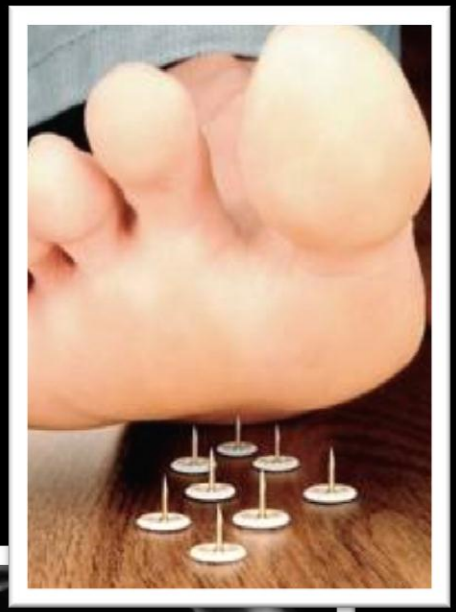
Thymidine[2]

1. US Retrovir Prescribing Information. Revised Sep 2010; 2. Levene PA and Tipson RS. *Science* 1935;81(2091):623–630

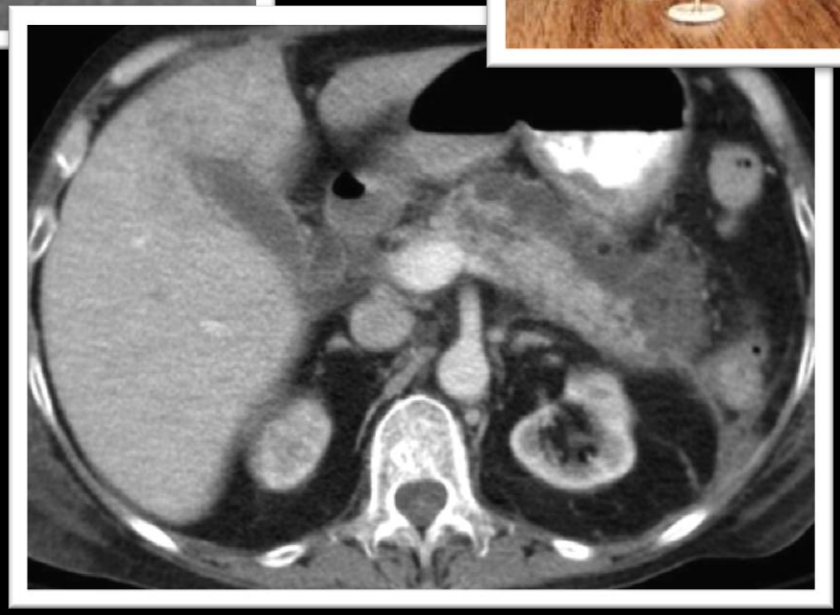



RED BLOOD CELLS
THE VITAL COMPONENTS OF BLOOD
55% PLASMA
<1% WHITE BLOOD CELLS
<1% PLATELETS
45% RED BLOOD CELLS
WHITE BLOOD CELL
PLATELET

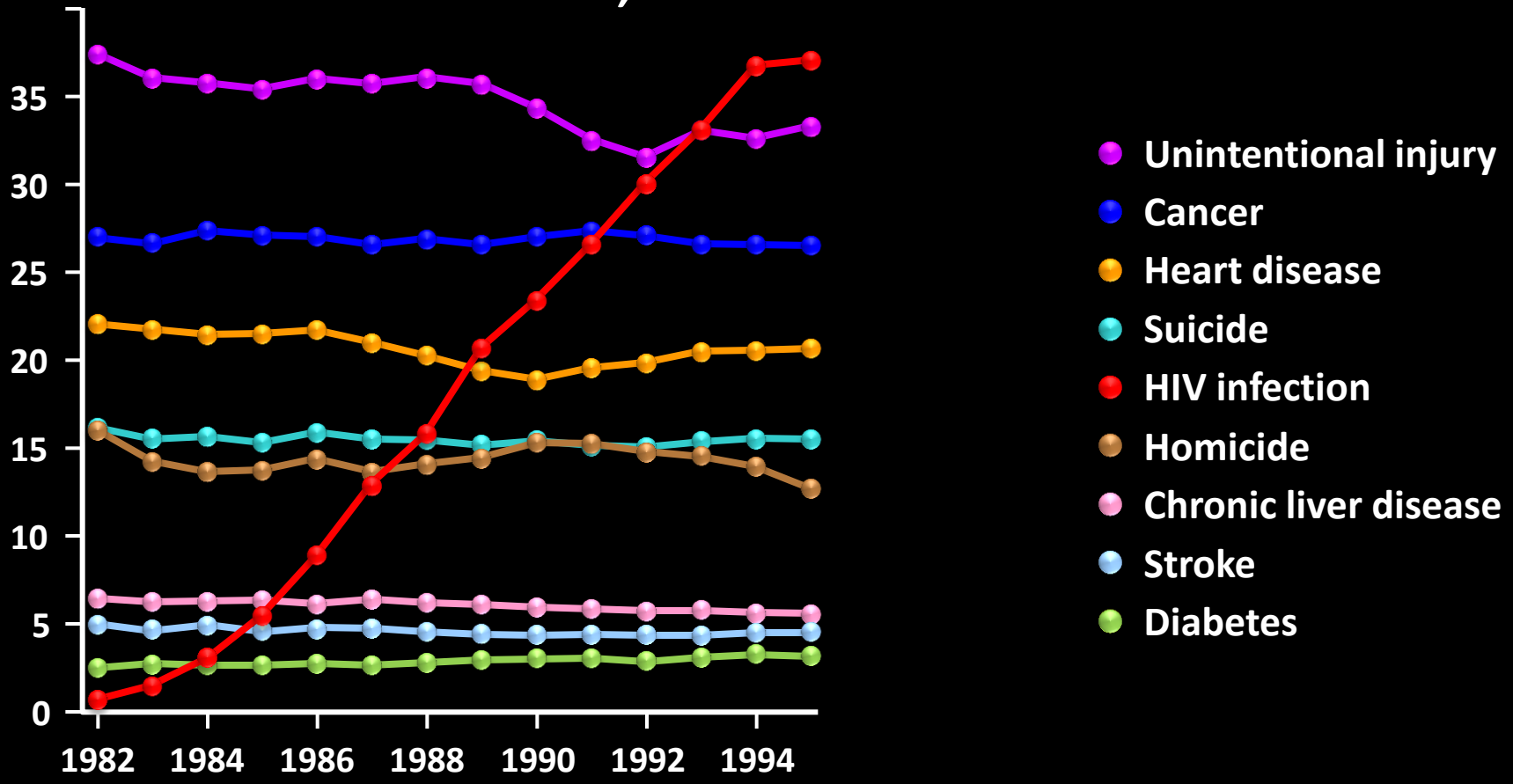

ROCHE
HIVID
0.750




CHILD-RESISTANT PACKAGING
USE SCISSORS TO OPEN
SINGLE-DOSE PACKET
VIDEX®
(didanosine)
Buffered Powder For Oral Solution
CAUTION: FEDERAL LAW PROHIBITS DISPENSING WITHOUT PRESCRIPTION
See accompanying circular for indications and dosage schedule.
BRISTOL-MYERS SQUIBB
Immunology

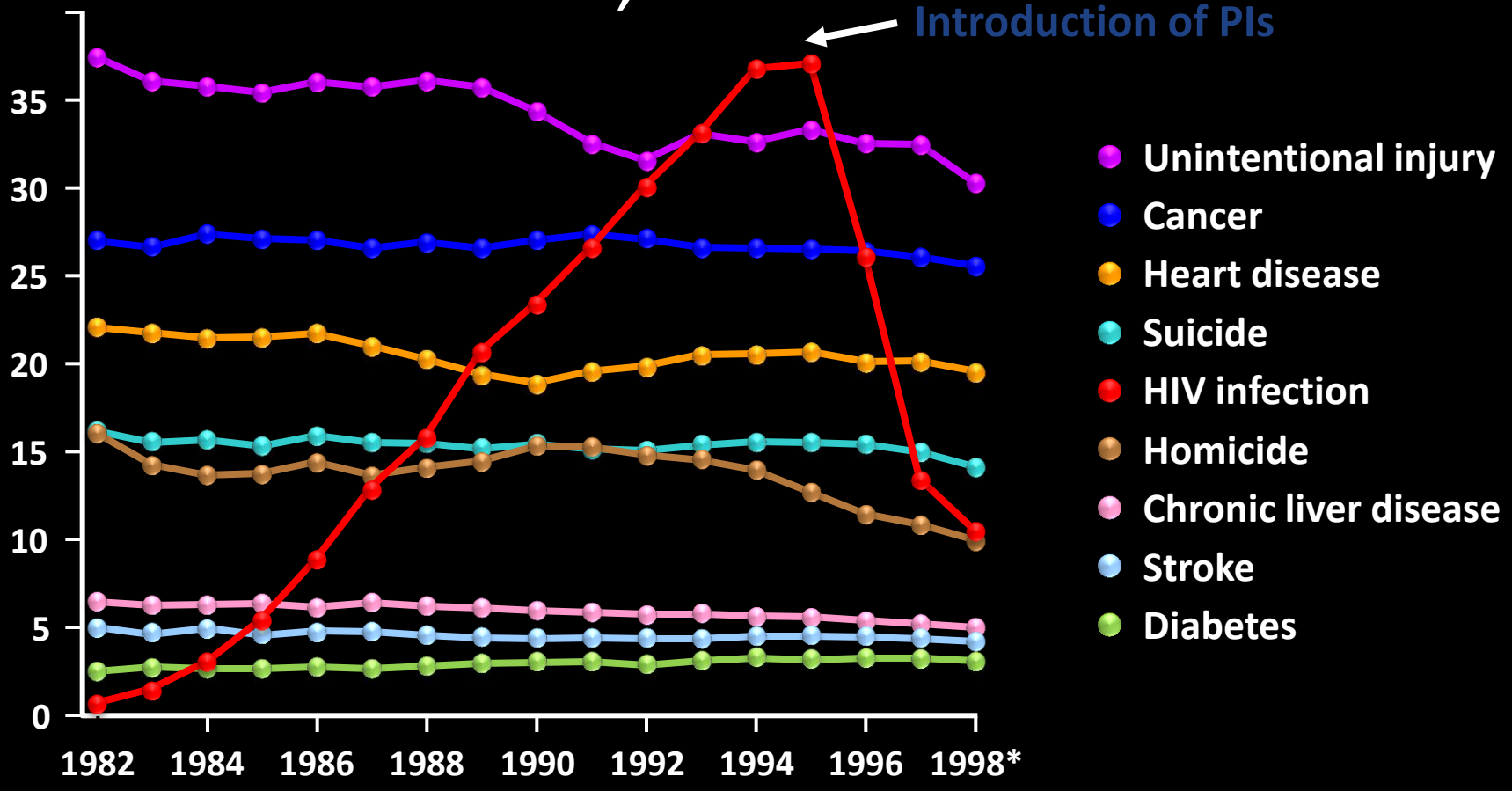


Mortality among persons 25–44 years old, USA, 1982–1995



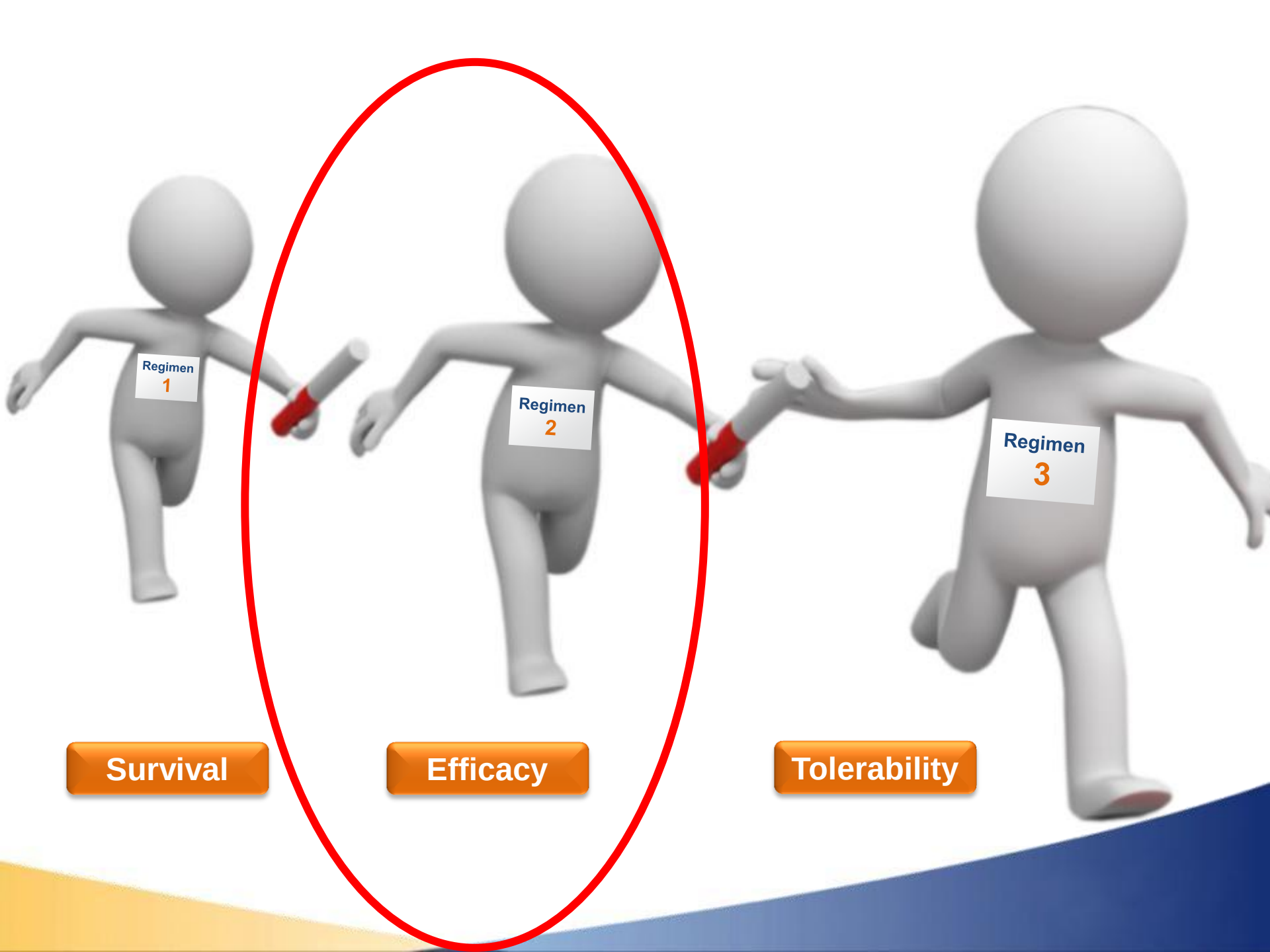
Centers for Disease Control HIV Mortality (through 2005). Available at: http://www.cdc.gov/hiv/topics/surveillance/resources/slides/mortality/index.htm. Accessed June 10, 2009

Mortality among persons 25–44 years old, USA, 1982–1998

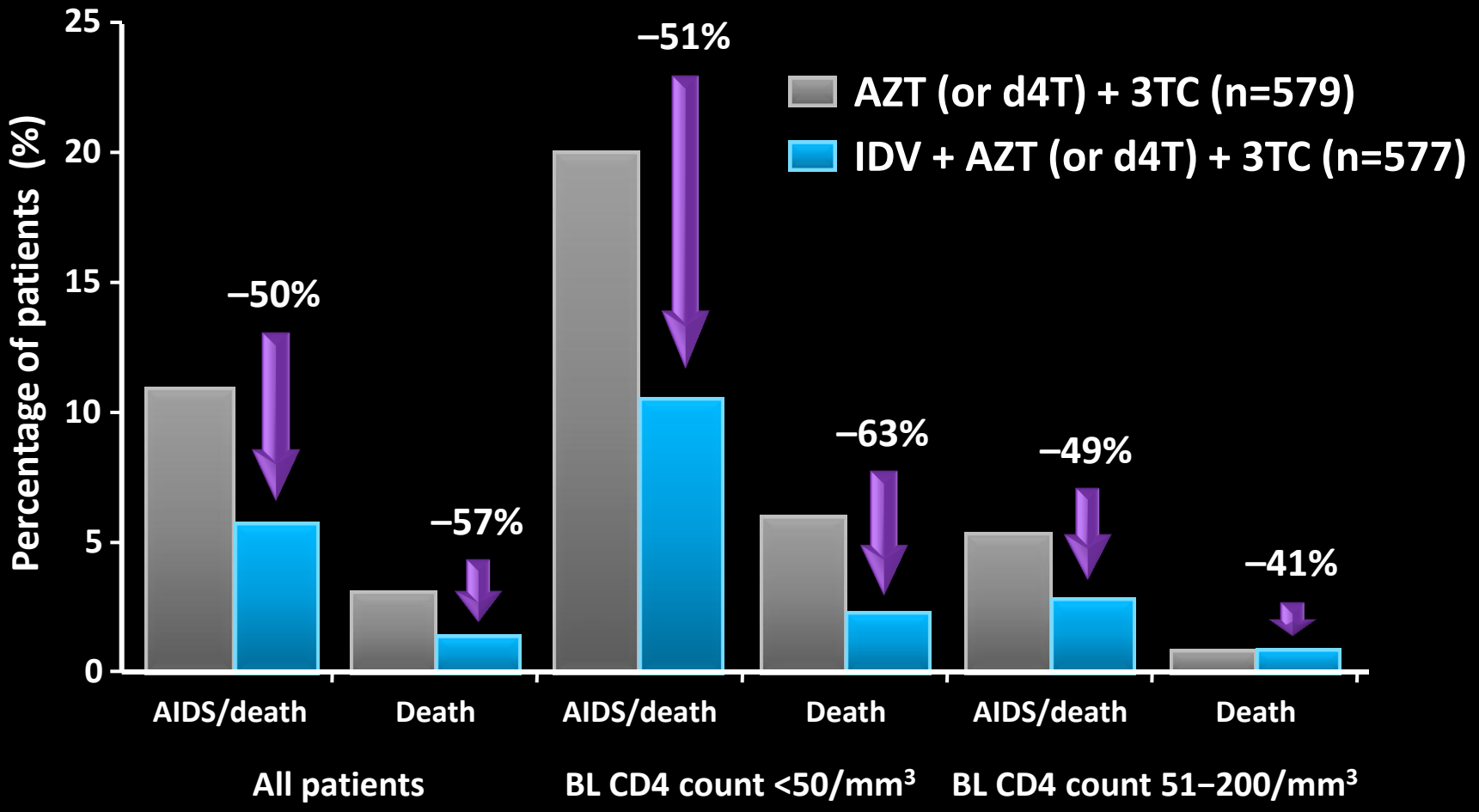


* Preliminary 1998 data

Centers for Disease Control HIV Mortality (through 2005). Available at: http://www.cdc.gov/hiv/topics/surveillance/resources/slides/mortality/index.htm. Accessed June 10, 2009

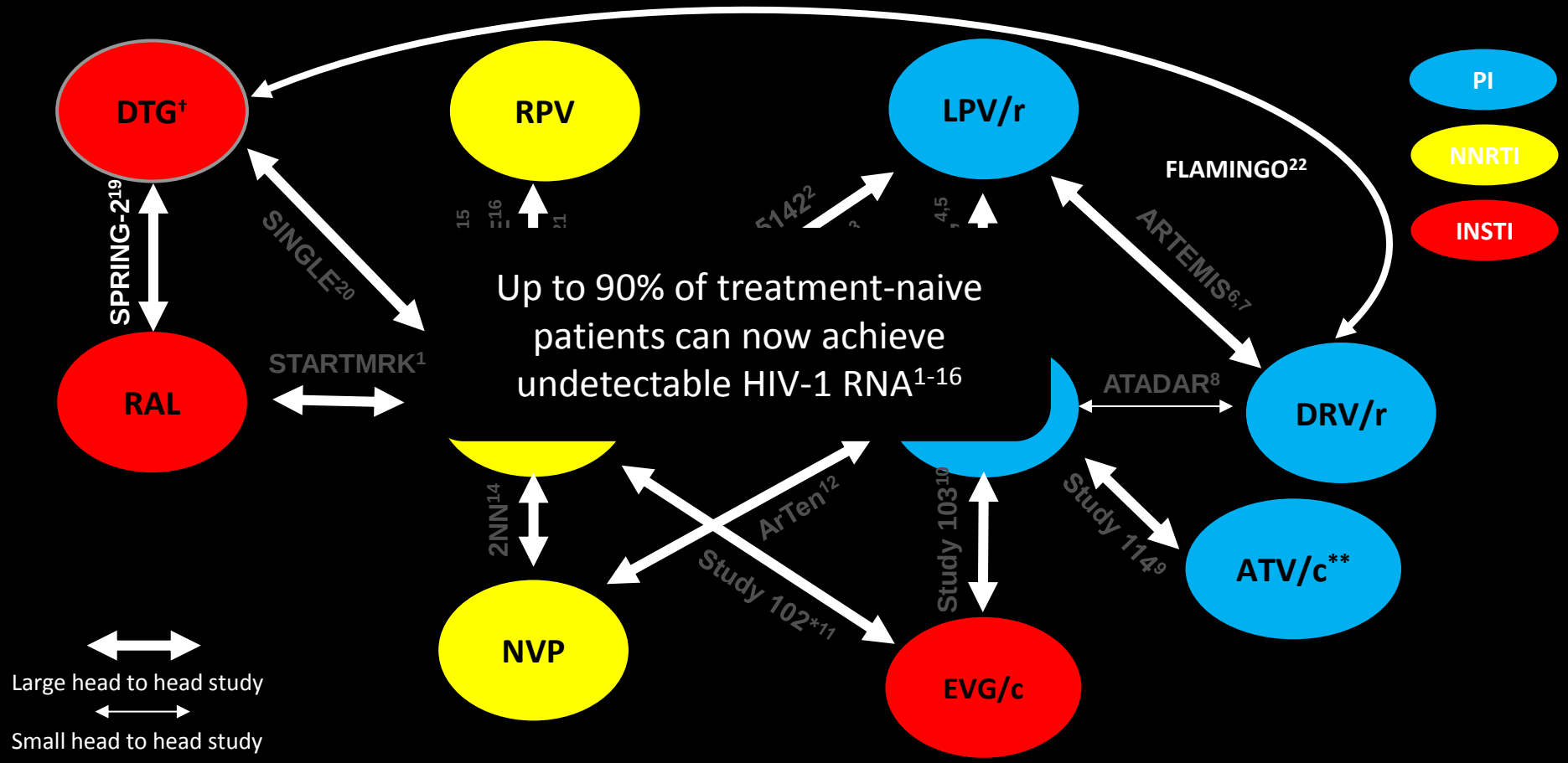

Regimen 1
Regimen 2
Regimen 3
Survival
Efficacy
Tolerability

Improved clinical outcomes: ACTG 320



Adapted from Hammer SM *et al. NEJM* 1997;337:725–33

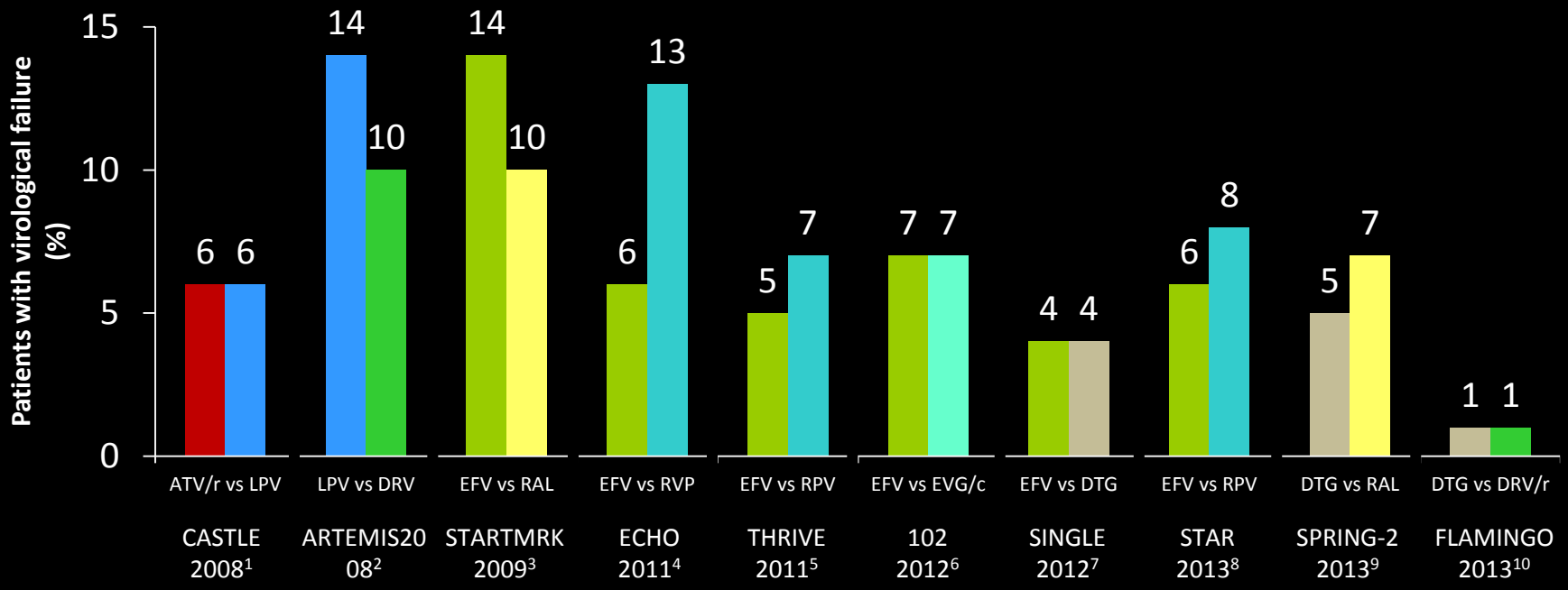
...a potent armamentarium



21. Cohen C et al. HIV11 2012. Oral presentation O425. URL: http://natap.org/2012/interHIV/InterHIV_15.htm. 22.

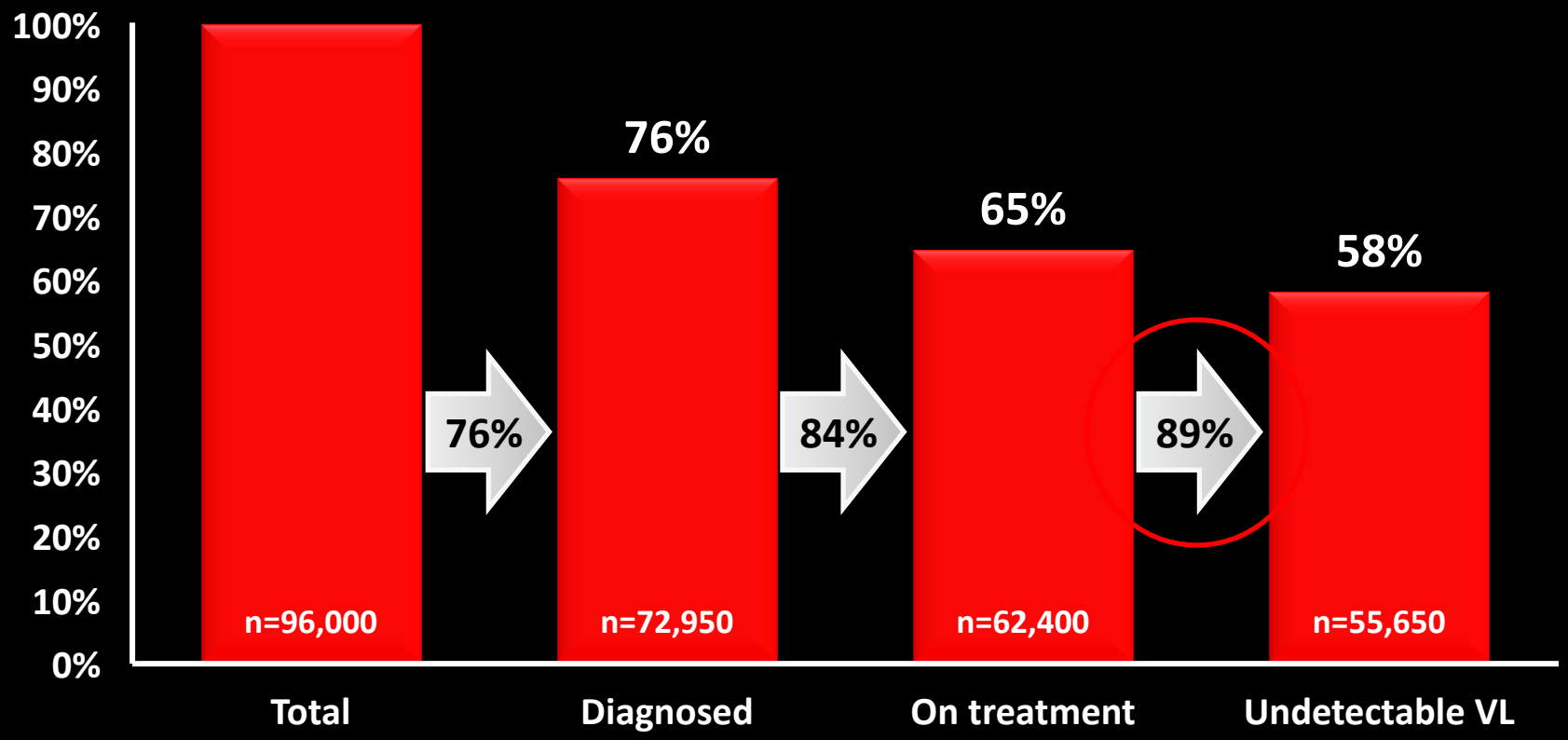
Evolution of virological failure rates at 48 weeks in recent studies

- Virological failure rates have generally decreased over time in recent studies



1. Molina J-M, et al. Lancet 2008;372:646–55. 2. Ortiz R, et al. AIDS 2008;22:1389–97. 3. Lennox JL, et al. Lancet 2009;374:796−806. 4. Molina J-M, et al. Lancet 2011;378:238–46. 5. Cohen CJ, et al. Lancet 2011;378:229–37. 6. Sax PE, et al. Lancet 2012;379:2439–48. 7. Walmsley S, et al. ICAAC 2012, San Francisco, USA. Oral abstract H-556b http://www.natap.org/2012/ICAAC/ICAAC_06.htm. 8. Cohen C et al. HIV11 2012. Oral presentation O425. URL: http://natap.org/2012/interHIV/InterHIV_15.htm. Accessed 1 Nov 2013. 9. Raffi et al. Lancet. 2013;381:735-43. 10. Feinberg J et al. ICAAC 2013. Abstract H-1464a. Available at http://www.icaaconline.com/php/icaac2013abstracts/start.htm

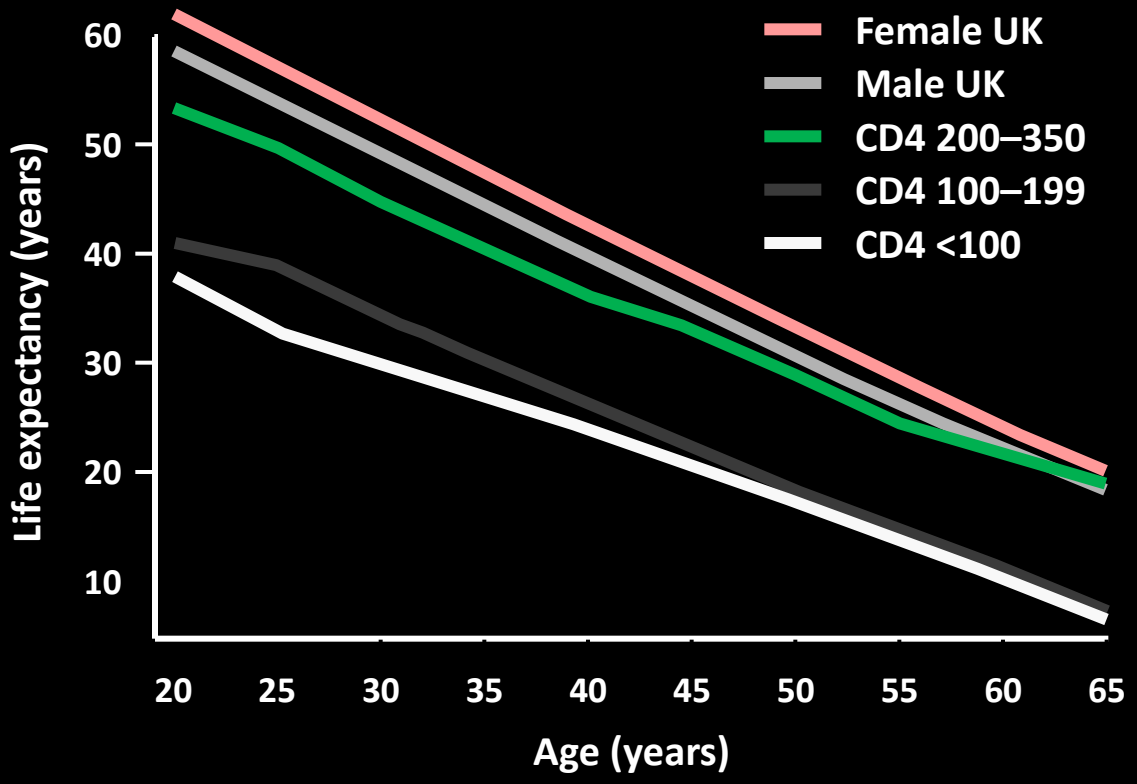
Continuum of care
Persons living with HIV in the UK 2011



HIV and AIDS Reporting System
HIV and STI Department, Health Protection Agency - Colindale

UK CHIC – Life expectancy

Life expectancy by CD4 count compared with UK population



LE at exact age 20 years:

1996- 2008	
UK women	61.6 yrs
UK men	57.8 yrs
HIV+ women	50.2 yrs
HIV+ men	39.5 yrs
1996–99 HIV+	30.0 yrs
2006–08 HIV+	45.8 yrs

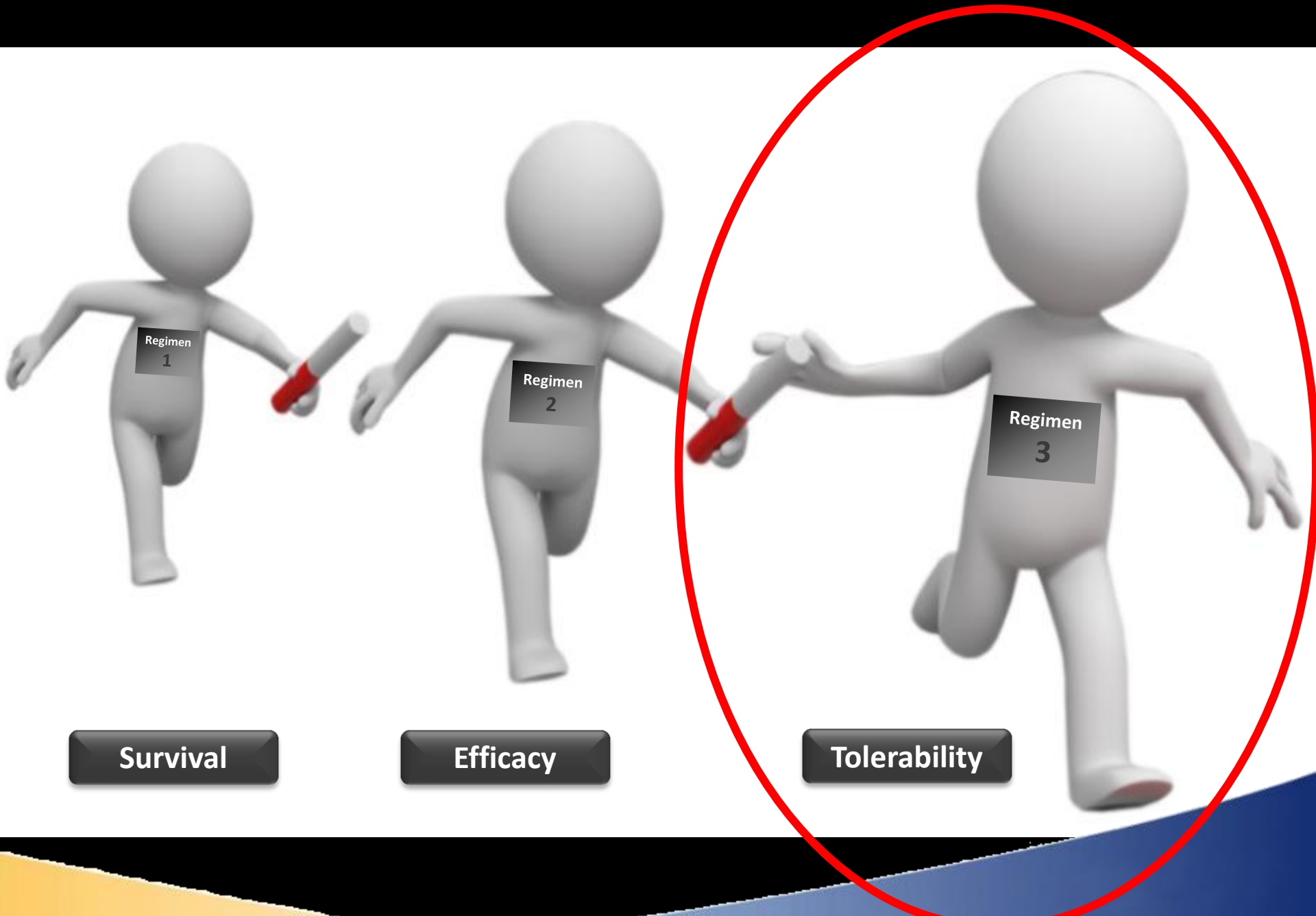
Start triple ART post 2000

CD4 200–350	53.4 yrs
CD4 100–199	41.0 yrs
CD4 <100	37.9 yrs

Impact on life expectancy of late diagnosis and treatment of HIV-1 infected individuals:
UK CHIC M May, M Gompels, C Sabin for UK CHIC. HIV10 Glasgow abstract 1629596

THE GRAYING OF AIDS

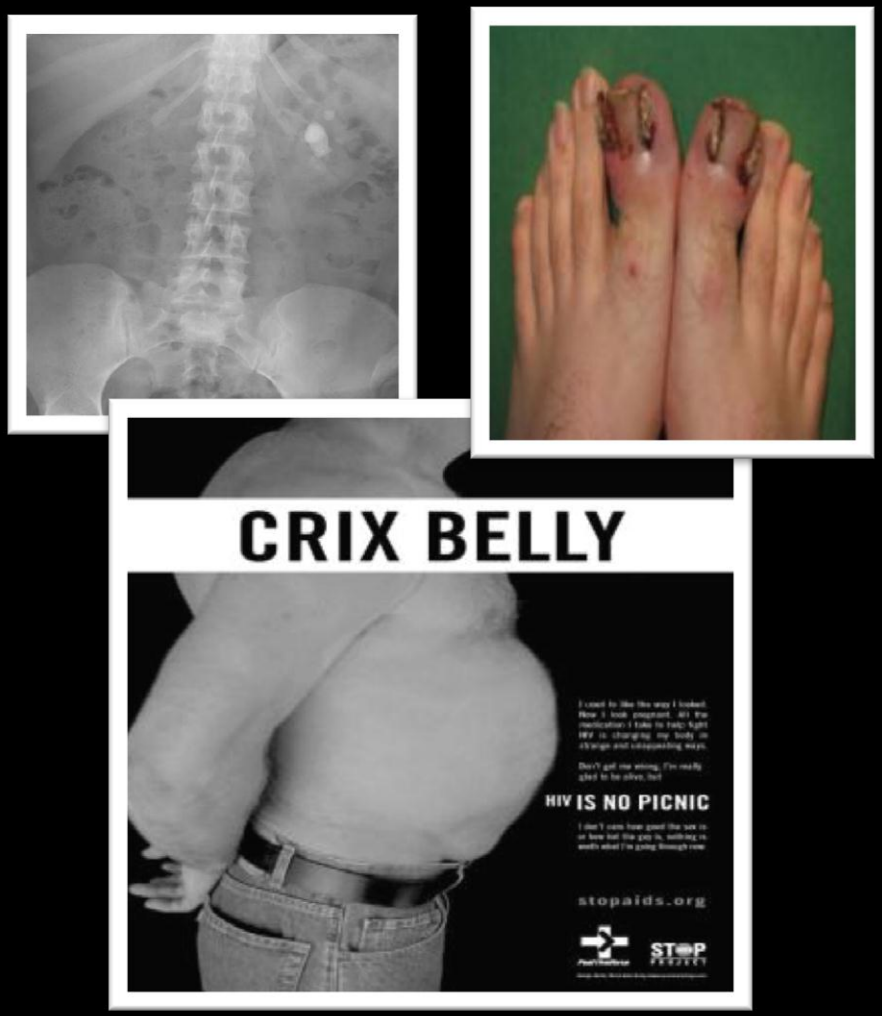
stories from an aging epidemic


Regimen 1
Regimen 2
Regimen 3
Survival
Efficacy
Tolerability

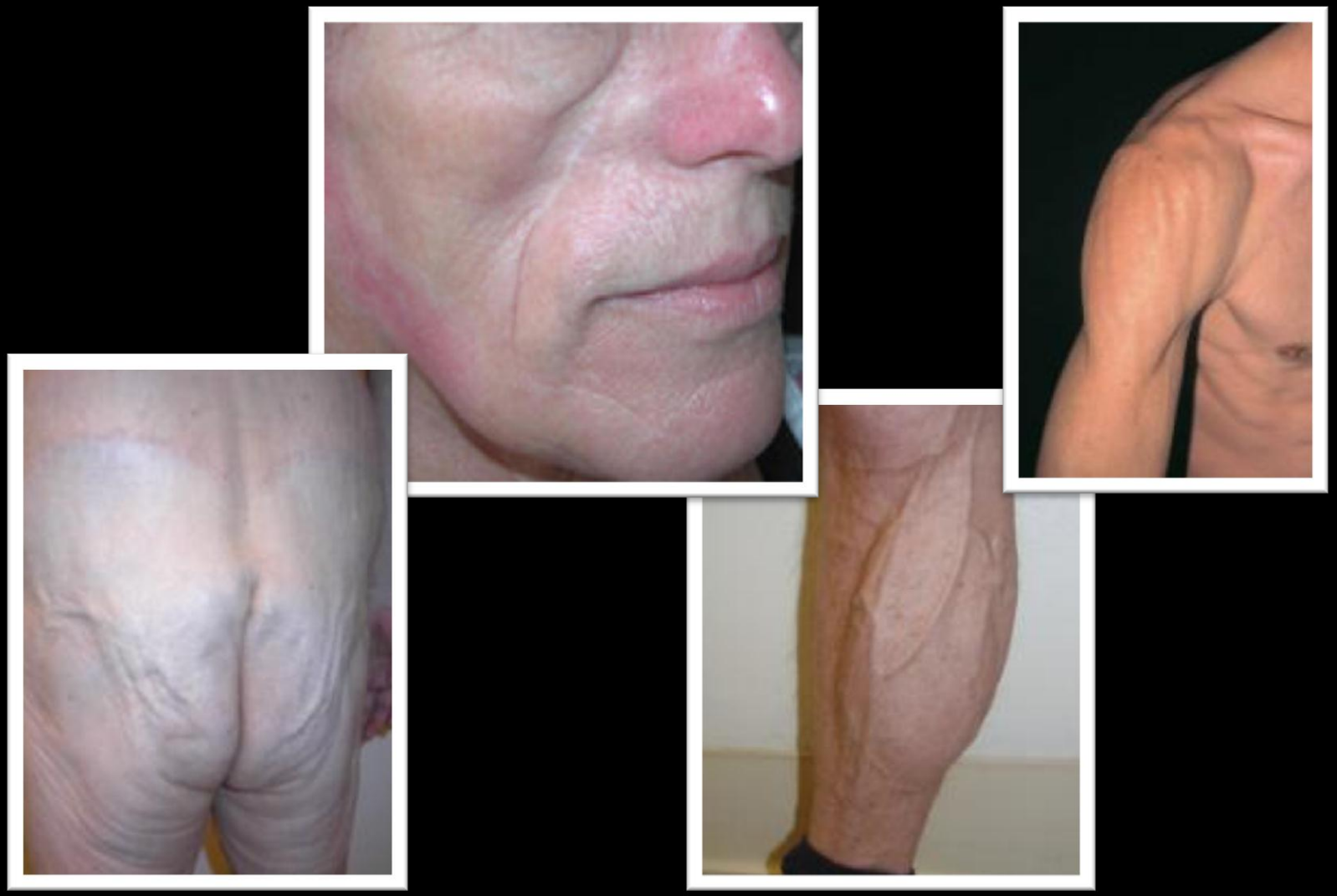

QUALITY
QUANTITY

Toxicity of first generation PIs

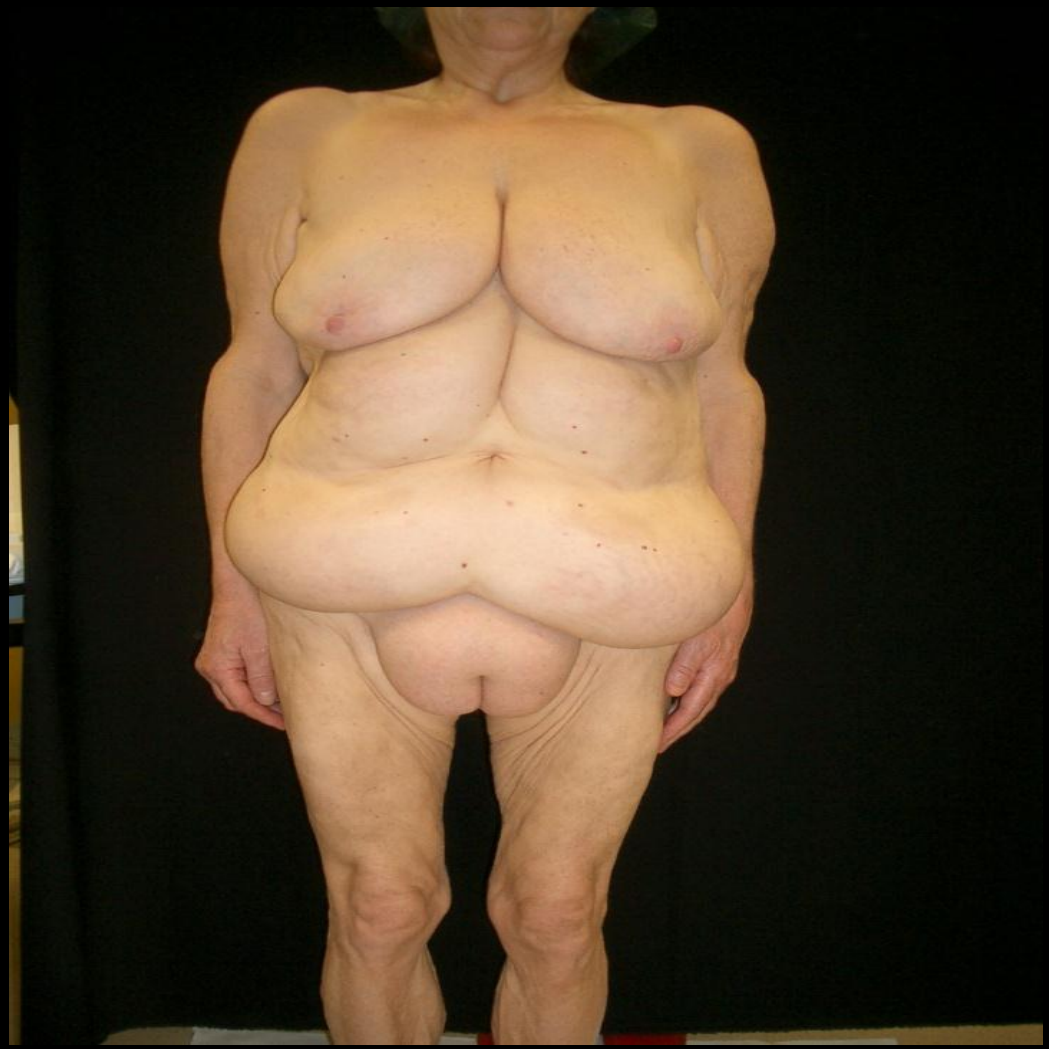
- Nausea
- Diarrhoea
- Metabolic disturbances
- Body shape changes
- Paraesthesia
- Dysgeusia



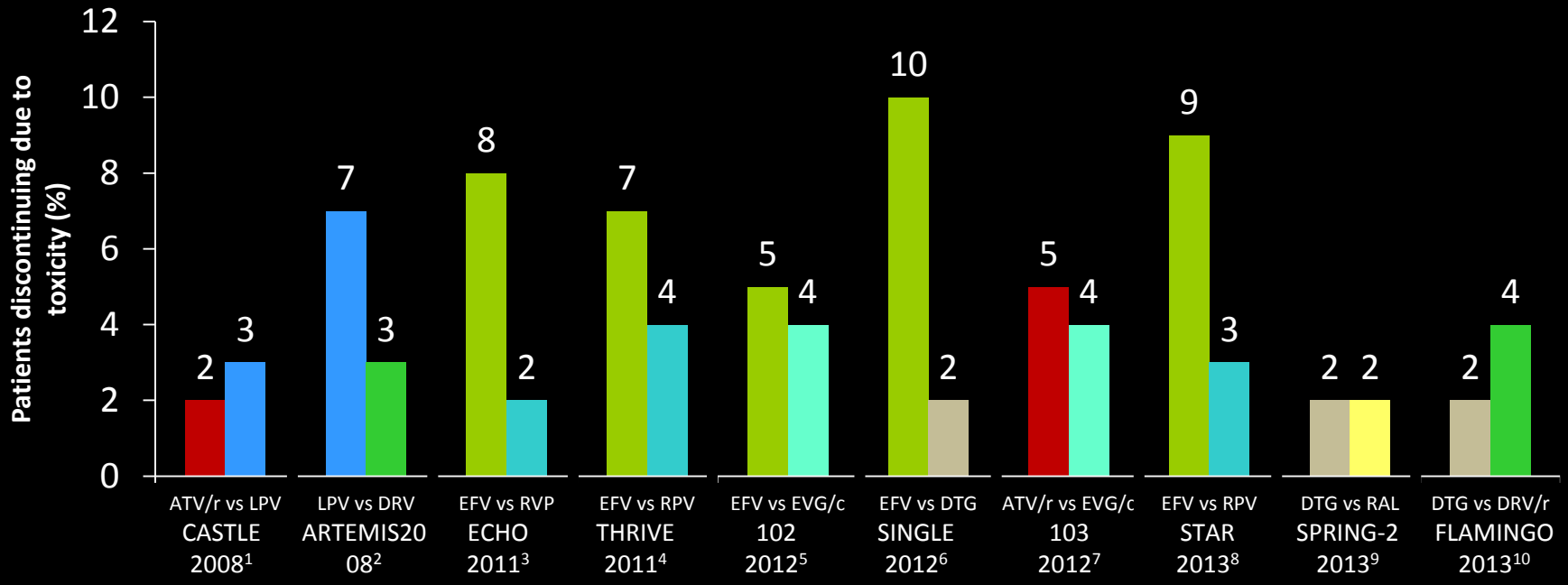
And nucleosides were associated with.....



Resulting in.....



Discontinuations due to toxicity over time



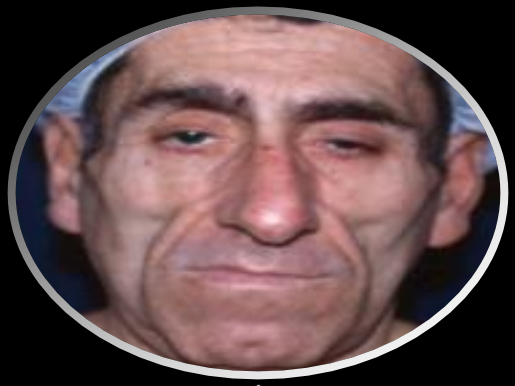
1. Molina J-M, et al. Lancet 2008;372:646–55. 2. Ortiz R, et al. AIDS 2008;22:1389–97. 3. Molina J-M, et al. Lancet 2011;378:238–46. 4. Cohen CJ, et al. Lancet 2011;378:229–37. 5. Sax PE, et al. Lancet 2012;379:2439–48. 6. Walmsley S, et al. ICAAC 2012, San Francisco, USA. Oral abstract H-556b http://www.natap.org/2012/ICAAC/ICAAC_06.htm. 7. DeJesus E, et al. Lancet 2012;379:2429–38. 8. Cohen C et al. HIV11 2012. Oral presentation O425. URL: http://natap.org/2012/interHIV/InterHIV_15.htm. Accessed 1 Nov 2013. 9. Raffi et al. Lancet. 2013;381:735-43. 10. Feinberg J et al. ICAAC 2013. Abstract H-1464a. Available at http://www.icaaconline.com/php/icaac2013abstracts/start.htm

Guideline recommendations for first-line treatment of naïve patients

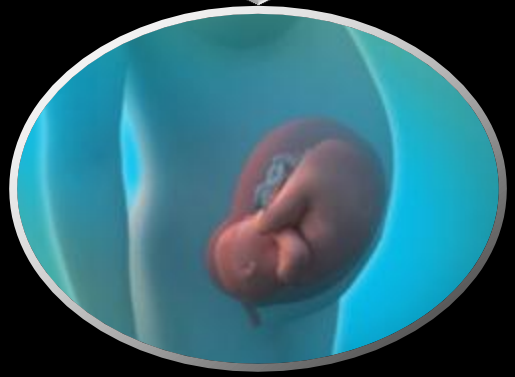
NRTI					
TDF/FTC or 3TC	X	X	X	X	X
ABC/3TC	X		X		
NNRTI					
EFV	X	X	X	X	X
RPV*			X		
PI					
ATV/r	X	X	X	X	
DRV/r	X	X	X	X	
II					
RAL	X	X	X	X	
DTG**		X			
EVG/COBI		X		X	

http://aidsinfo.nih.gov/guidelines Accessed on 11/14/2013
at http://www.europeanaidsclinicalsociety.org/guidelines.asp
http://www.who.int/hiv/pub/guidelines/artadultguidelines.pdf


Efavirenz

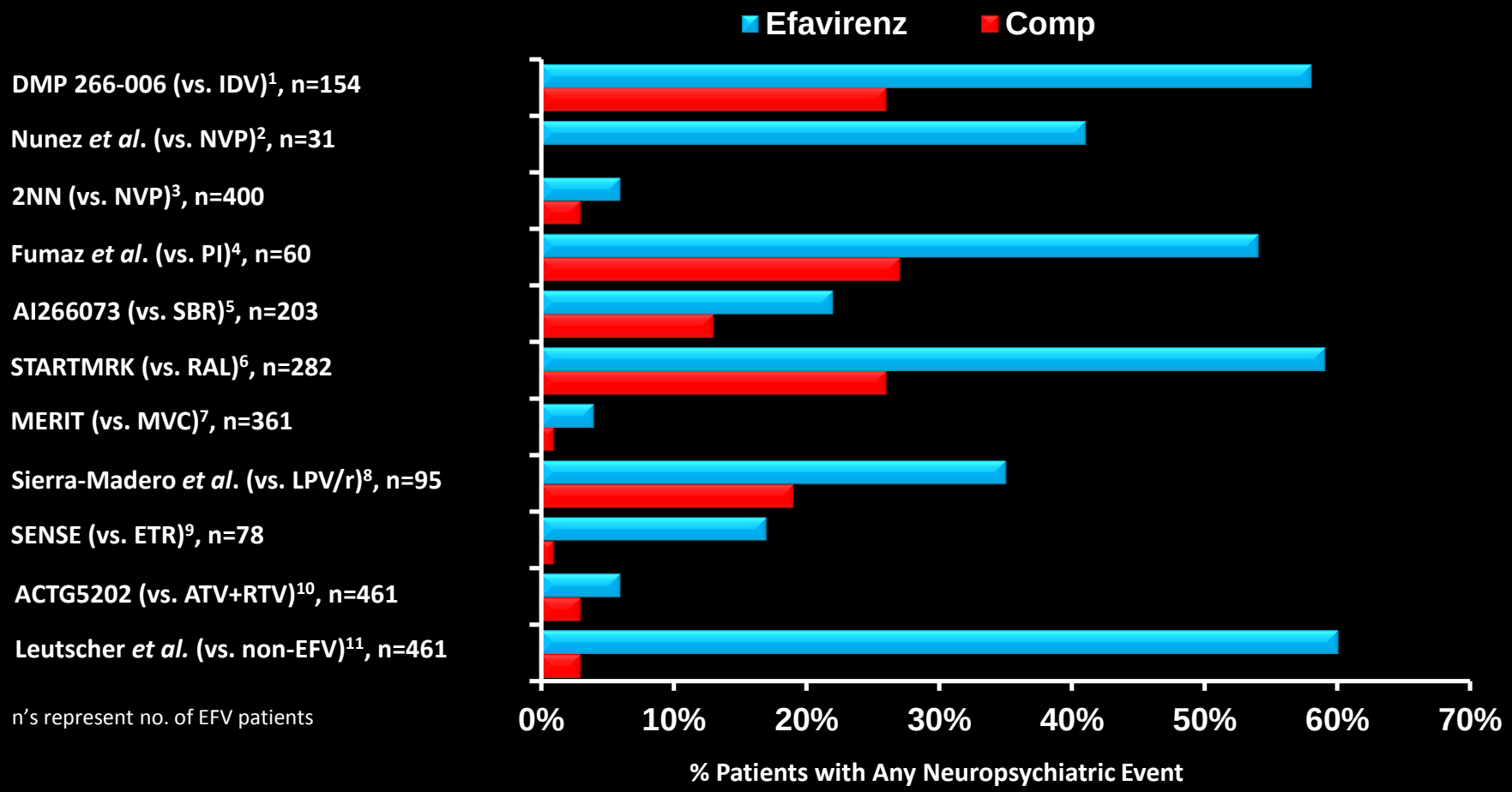


Efavirenz



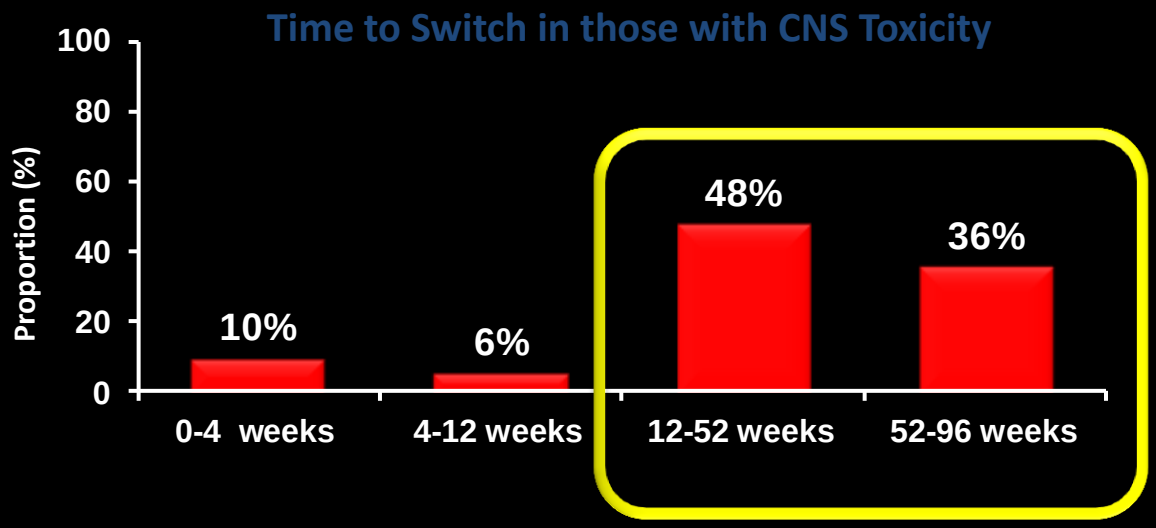
EFV: Cross-study comparison of the overall incidence of neuropsychiatric adverse events

‡



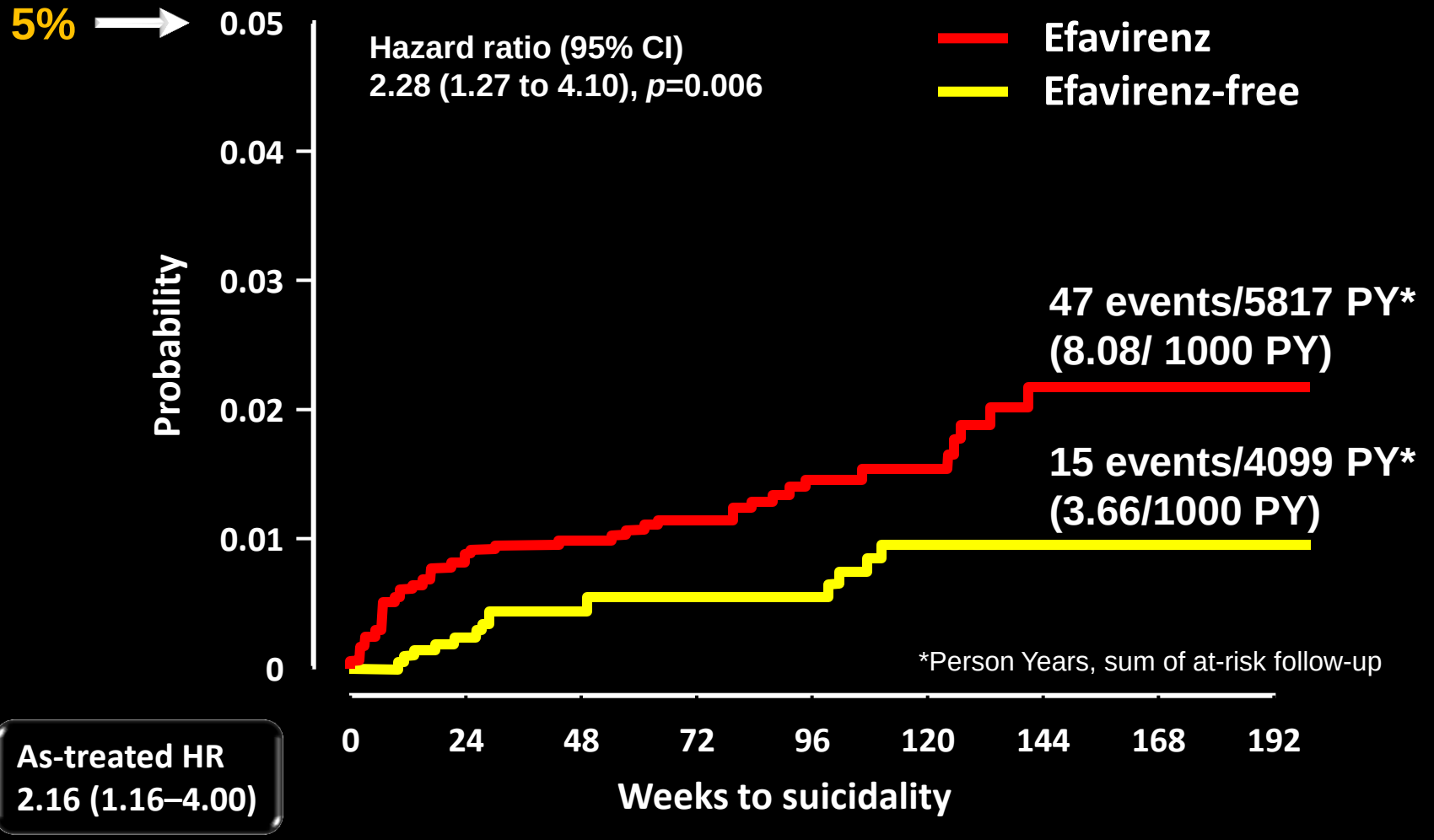
Post-approval, EFV-associated CNS toxicity has been consistently reported in both randomized clinical trials and cohort studies

Persistent neuropsychiatric AEs lead to late discontinuation of EFV/FTC/TDF STR



The majority of cases of CNS toxicity leading to treatment modification occurred after having been established on EFV/FTC/TDF STR for more than 3 months

Time to suicidality, primary analysis



As-treated HR
2.16 (1.16–4.00)

Scourfield A, *et al. AIDS*, 2012;26:1399-1401

A new era in HIV treatment

Efficacy: newer treatments outperform EFV

‡

GS-102[1] (STB vs. ATR) N=700
88% vs. 84% (Snapshot)

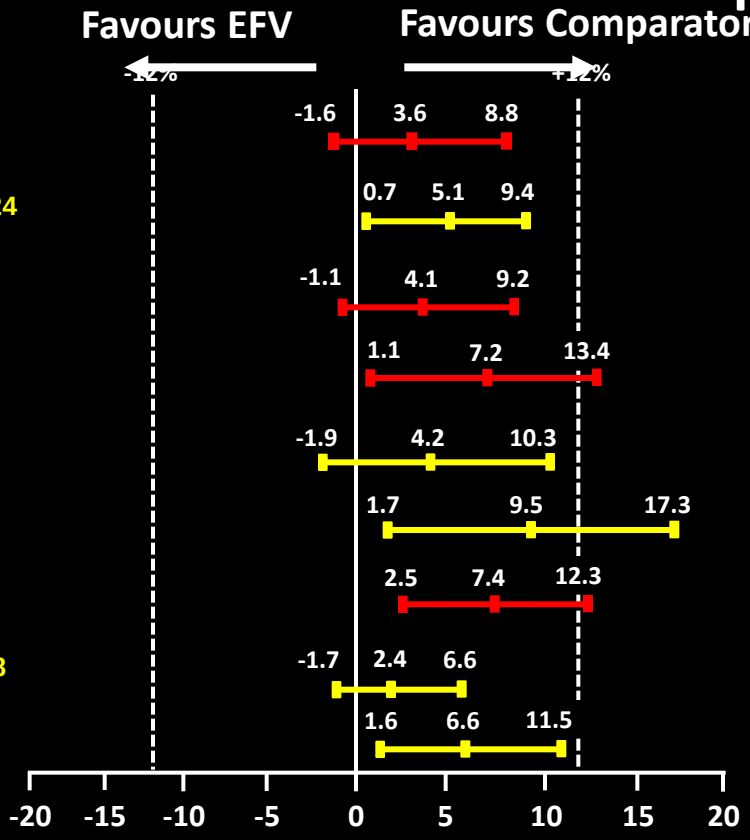
GS-102/103/104[2] (STB vs. ATR) N=1124
89% vs. 84% (Snapshot)

STaR[3] (CPA vs. ATR) N=786
86% vs. 82% (Snapshot)
89% vs. 82% (Snapshot)
BLVL ≤100,000 cpm

STARTMRK[4] (RAL vs. EFV) N=566
86% vs. 82% (ITT, NC=F)
71% vs. 61% (ITT, NC=F)

SINGLE[5] (DTG vs. ATR) N=833
88% vs. 81% (Snapshot)

ECHO/THRIVE[6] (RPV vs. ATR) N=1368
83% vs. 80% (Snapshot)
90% vs. 84% (TLOVR)
BLVL ≤100,000 cpm



Week 48: Non-inferiority shown

Week 48 (Pooled): Statistically significant higher VL response

Week 48: Non-inferiority shown

Week 48: Statistically significant higher VL response

Week 48: Non-inferiority shown

Week 240: Statistically significant higher VL response

Week 48: Statistically significant superior VL response

Week 48: Non-inferiority shown

Week 48: Statistically significant higher VL response

Newer ARVs have demonstrated higher rates of virologic suppression compared to EFV-based regimens in HIV-1 infected ART-naïve patients

1. Sax P, et al. Lancet 2012;379:2429–38
2. Ward D, et al. ICAAC 2012; San Francisco, CA. Oral H-555
3. Cohen C, et al. HIV-11 2012; Glasgow. O425; Data on File
4. Rockstroh J, et al. IAC 2012; Washington, DC. LBPE019
5. Walmsley S, et al. ICAAC 2012; San Francisco, CA. Oral H-556b
6. Cohen C, et al. JAIDS 2012;60:33-42

‡

Tolerability: Newer ARVs outperform EFV

Incidence of specific AEs of interest (%)

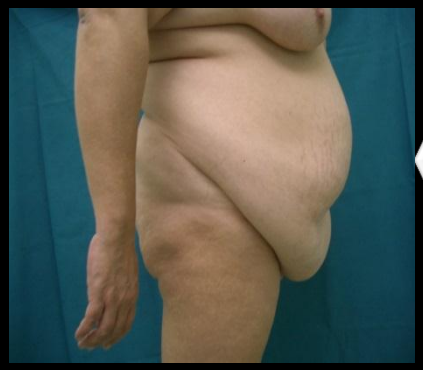
Study	Comparator	EFV Pts, n	Dizziness		Insomnia		Abnormal Dreams		Rash		FU Weeks
			EFV	Comp	EFV	Comp	EFV	Comp	EFV	Comp	
GS-102[1]	EVG/COBI	352	24	7	14	9	27	15	12	6	48
STaR[2]	RPV	392	22	7	14	10	25	6	12	6	48
STARTMRK[3]	RAL	284	35	8	8	8	13	7	8	1	240
SINGLE[4]	DTG	419	35	9	10	15	17	7	14	3	48
ECHO/THRIVE[5,6]	RPV	682	28	10	8	8	13	9	14	3	48

Randomized, controlled trials in ART-naïve patients have shown newer ARVs to be associated with a lower incidence of neuropsychiatric symptoms and rash compared with EFV

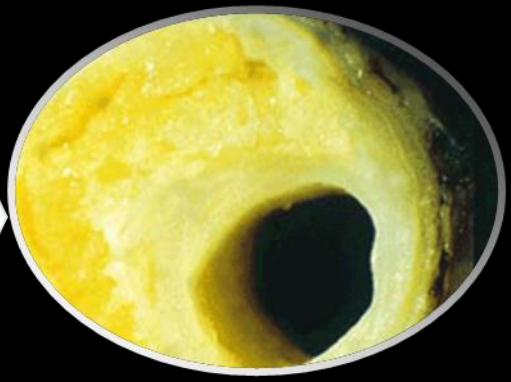
‡

ATV/r

DRV/r



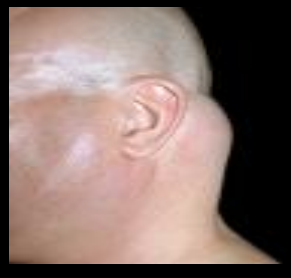
LOP/r

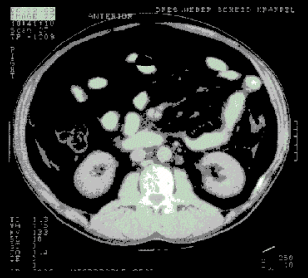


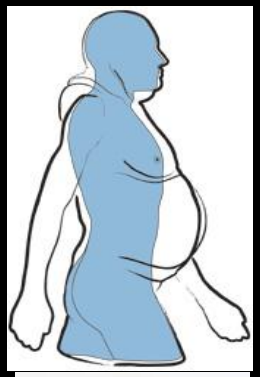
twicedaily

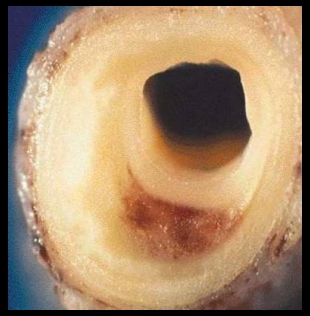
RAL

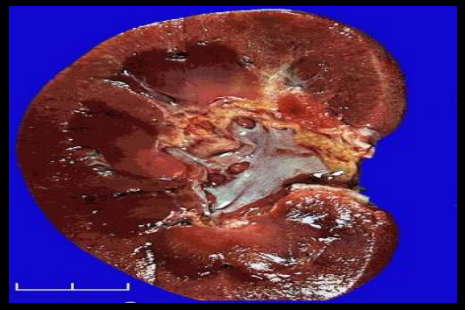

Lipemic

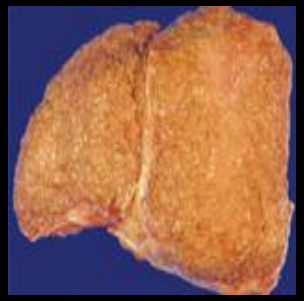


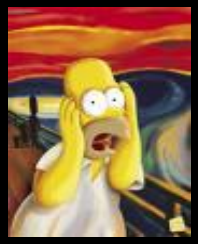


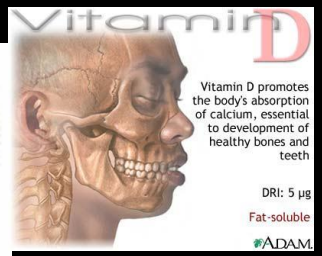











Vitamin D
Vitamin D promotes the body's absorption of calcium, essential to development of healthy bones and teeth
DRI: 5 µg
Fat-soluble
ADAM.

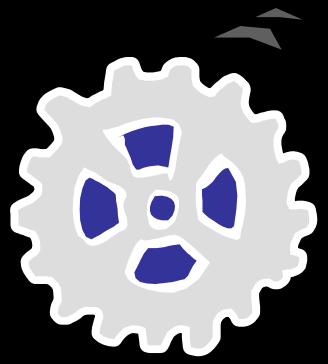

1889
1890
1891
1892

Toxicities: delayed recognition

Drug / class	FDA approval	Toxicity	Strong signal	Delay (years)
Zidovudine	1987	lipoatrophy	1999	12
Stavudine	1994	lipoatrophy	1999	5
Nevirapine	1996	hepatitis / rash at higher CD4	2005	9
PIs	1996-	heart attack	2003	7
Efavirenz	1998	suicidality	2013	15
Abacavir	1998	heart attack	2008	10
Tenofovir	2001	kidney disease	2006	5
Tenofovir	2001	fracture	2013	12
Raltegravir	2007	myopathy	2012	5

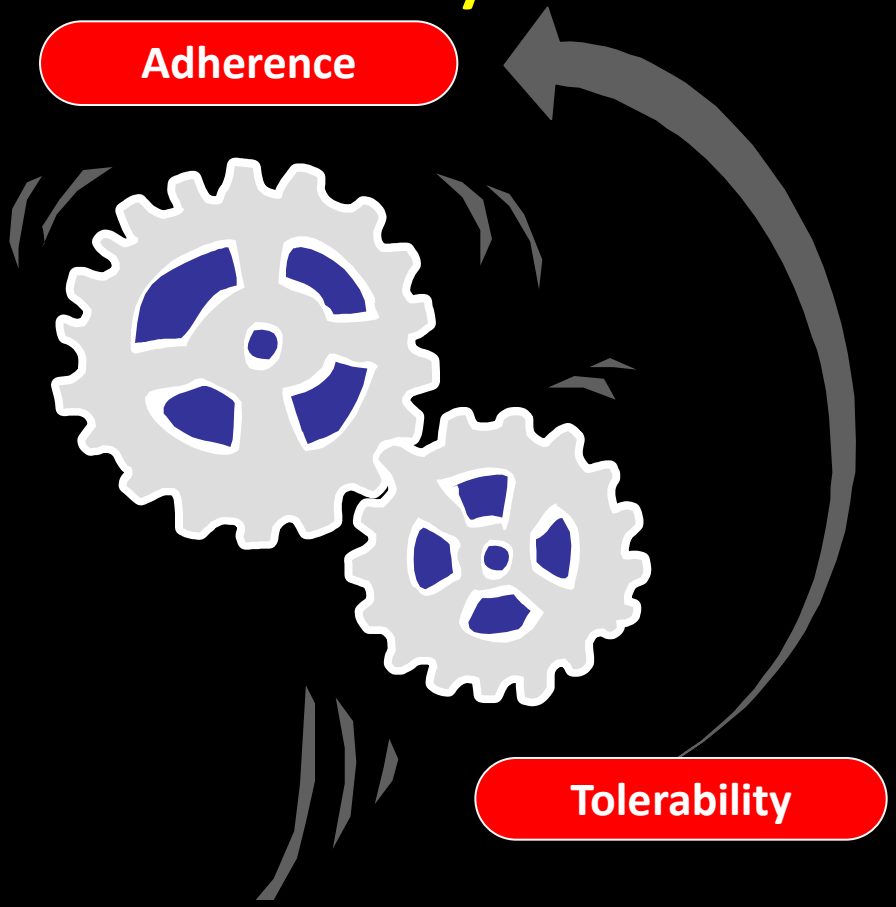
Saint-Marc et al, AIDS 1999; Lundgren et al, NEJM 2003; D:A:D Study Group, Lancet 2008
Cooper et al, Clin Infect Dis 2010; Bedimo et al, AIDS 2012; Lee et al, JAIDS 2013; Mollan et al, IDSA 2013

Tolerability drives adherence, which drives efficacy

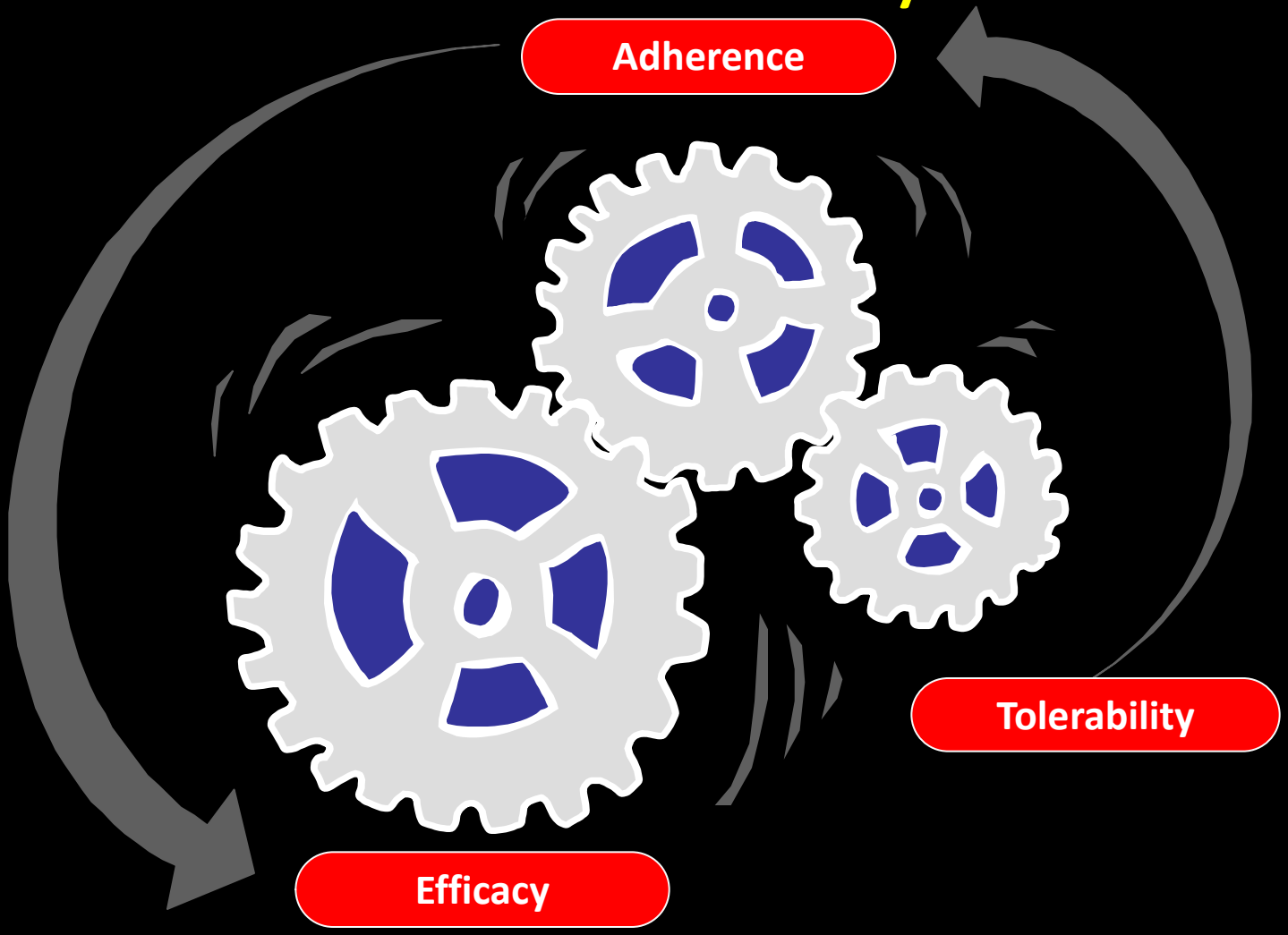


Tolerability

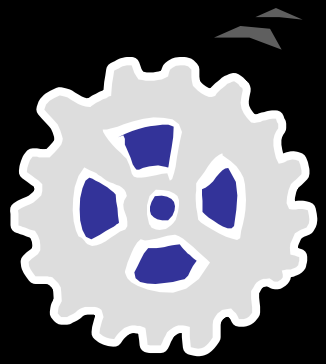
Tolerability drives adherence, which drives efficacy



Tolerability drives adherence, which drives efficacy

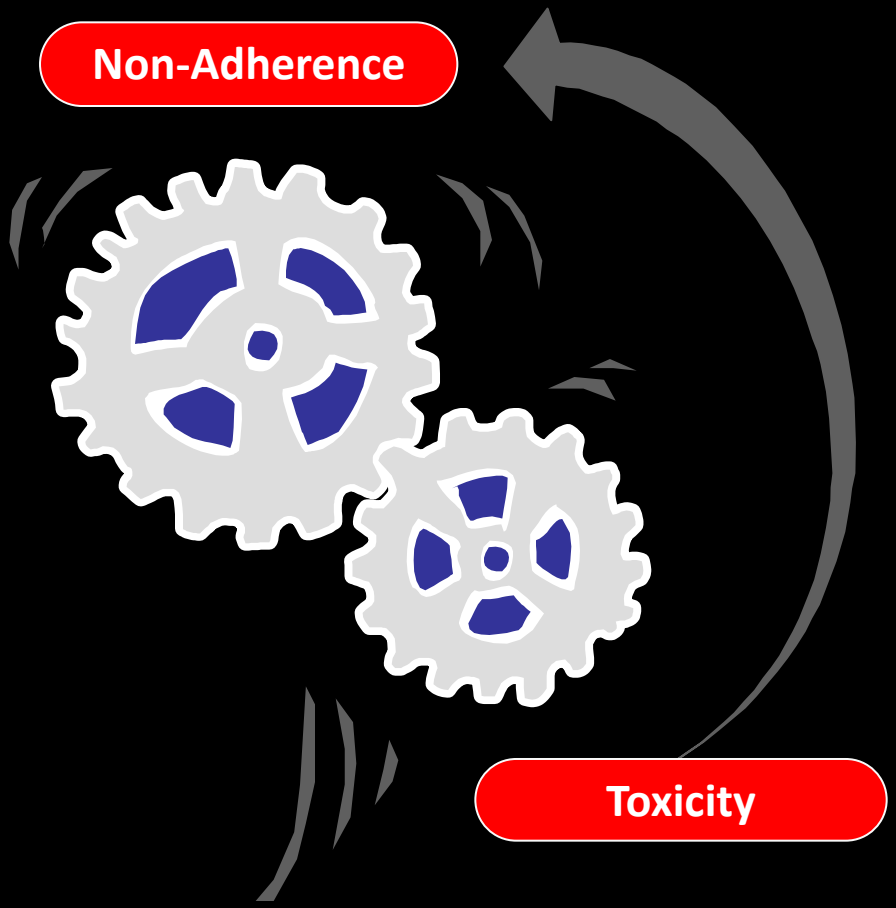


Toxicity drives non-adherence, which drives failure

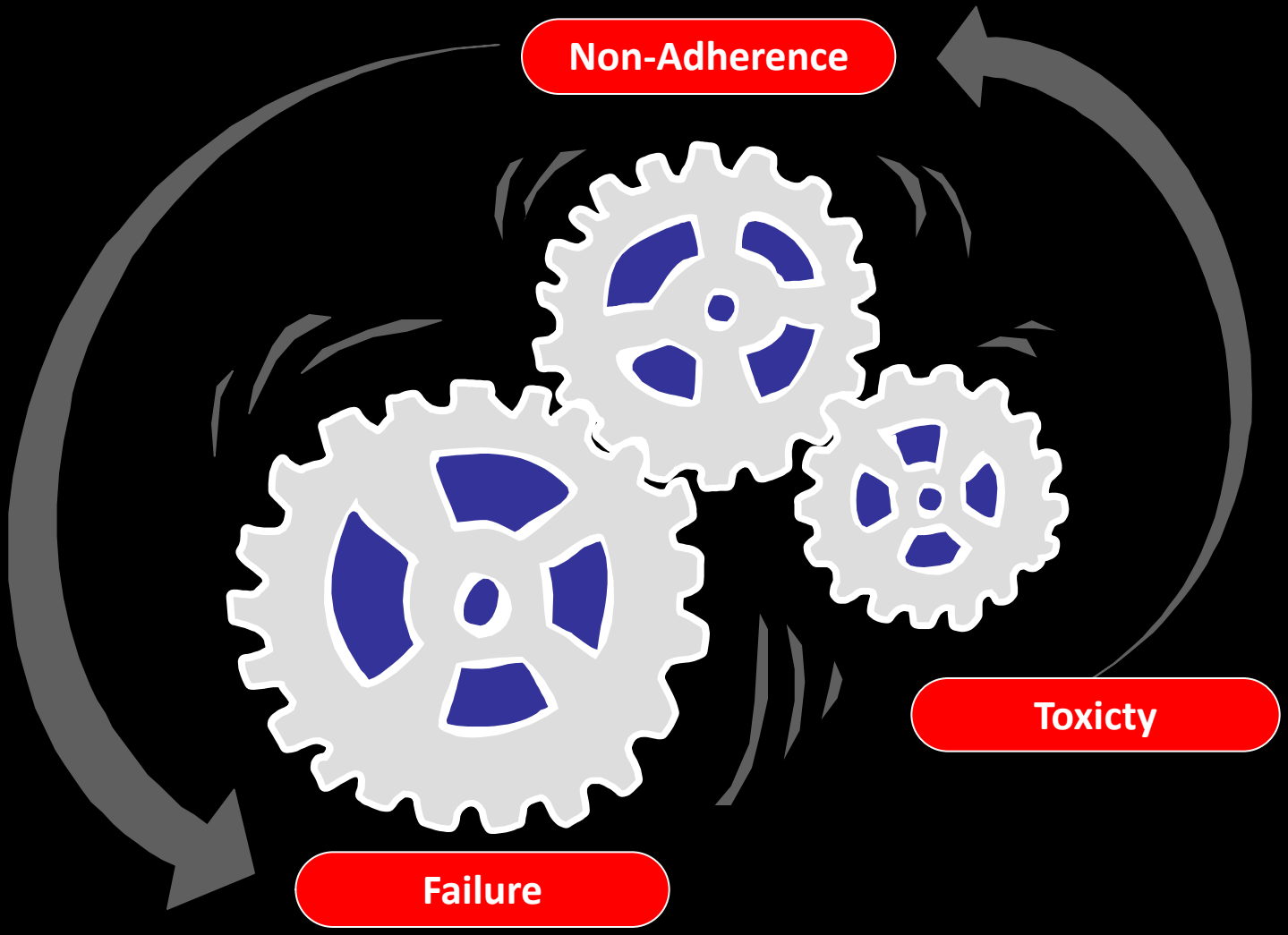


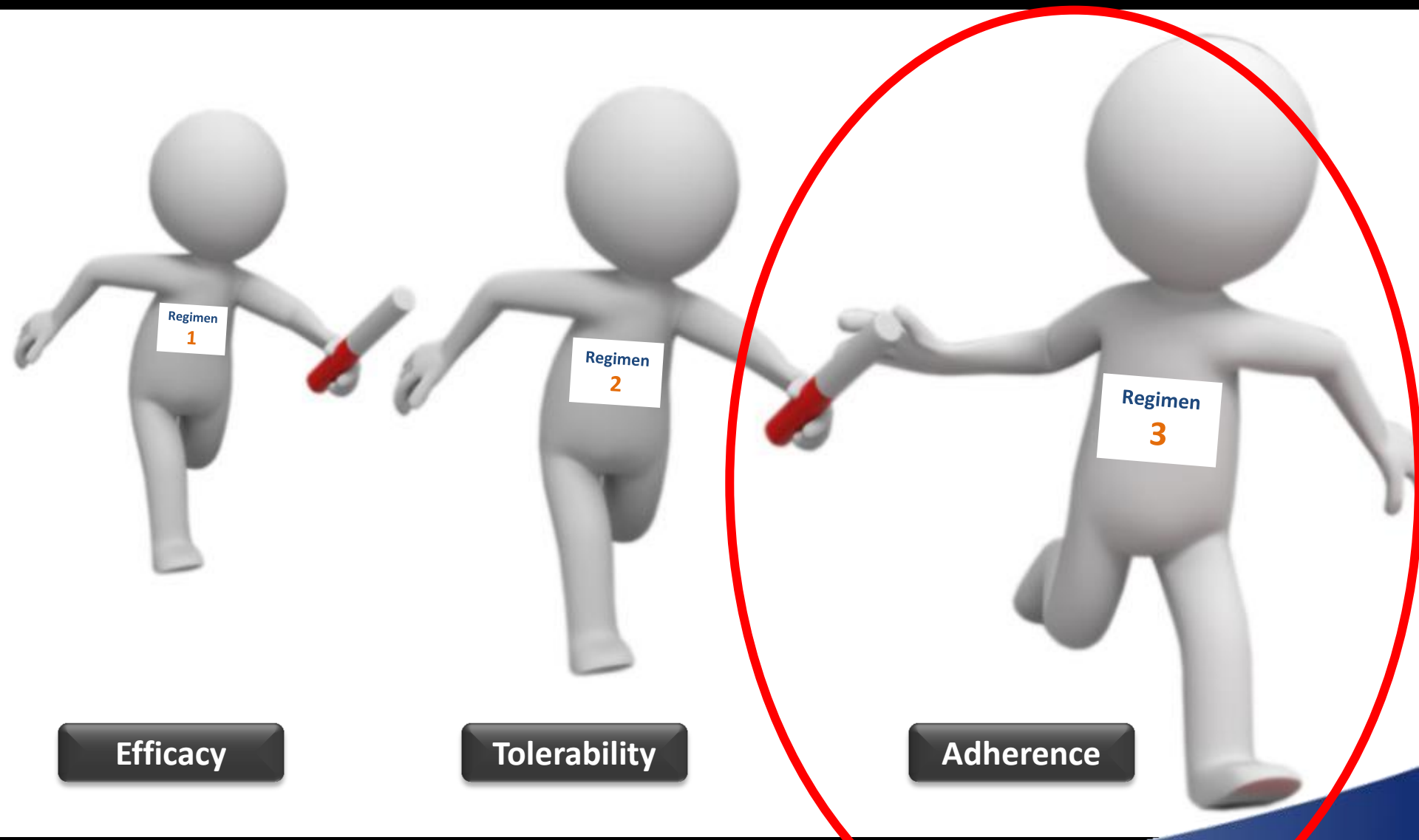
Toxicty

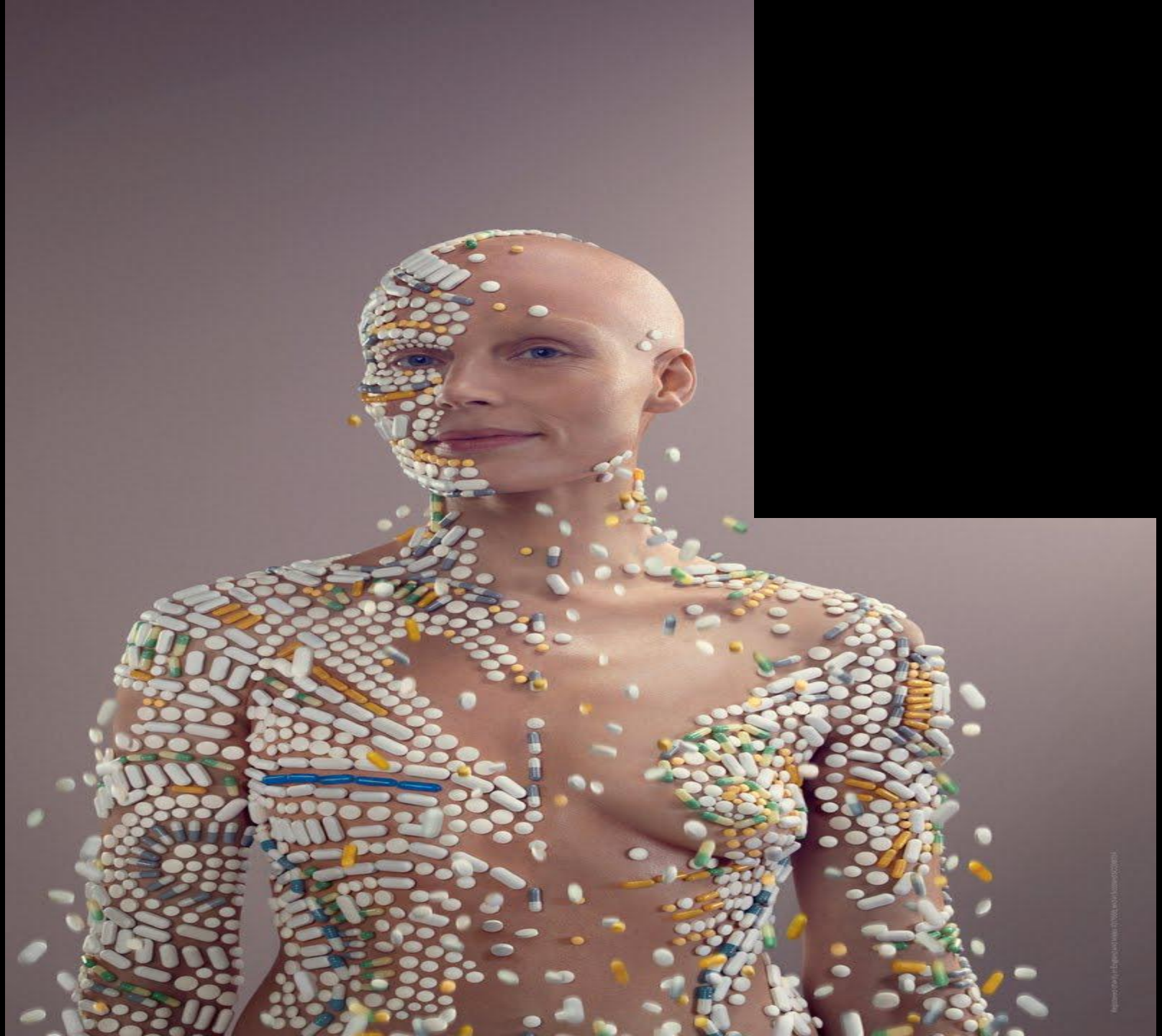
Toxicity drives non-adherence, which drives failure



Toxicity drives non-adherence, which drives failure




Regimen 1
Regimen 2
Regimen 3
Efficacy
Tolerability
Adherence



“Drugs don’t work if people don’t take them”

Former US Surgeon General C. Everett Koop

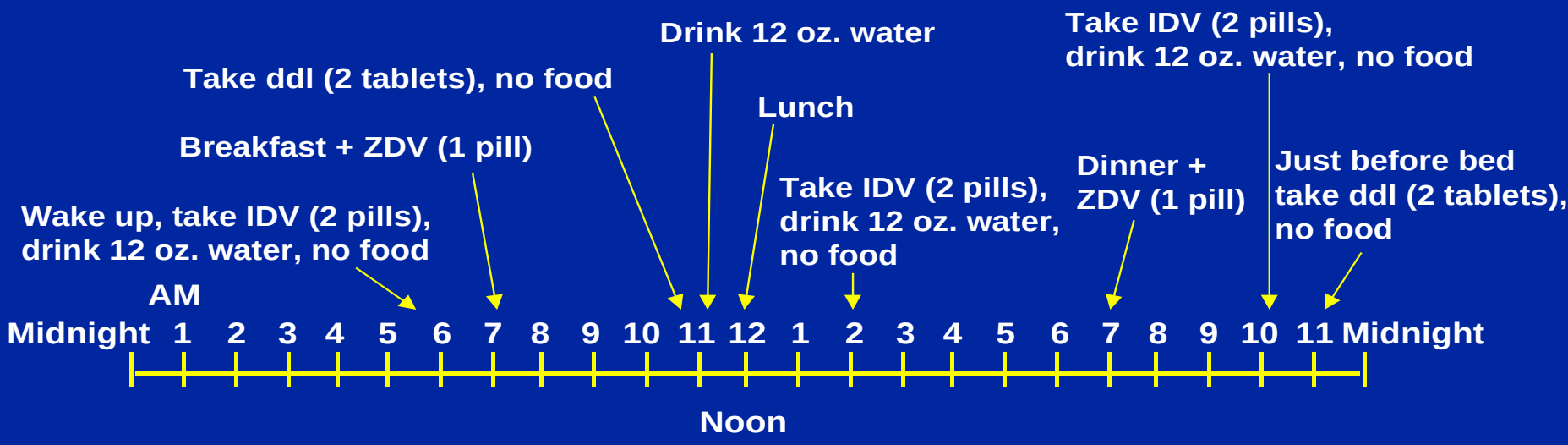
- ***"Drugs do work if people do take them"***

Mark R. Nelson

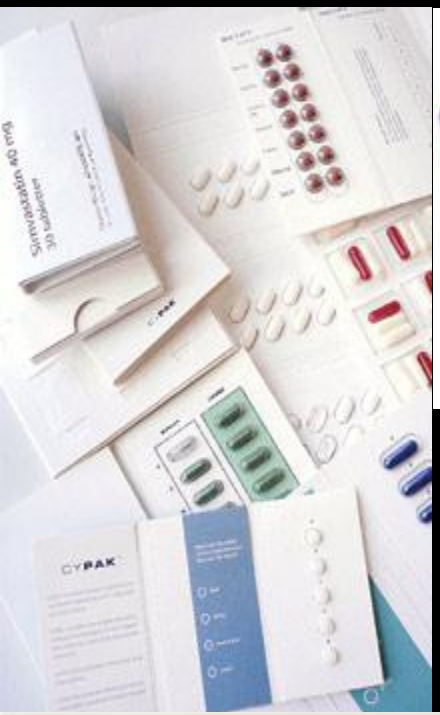
UK Surgeon General

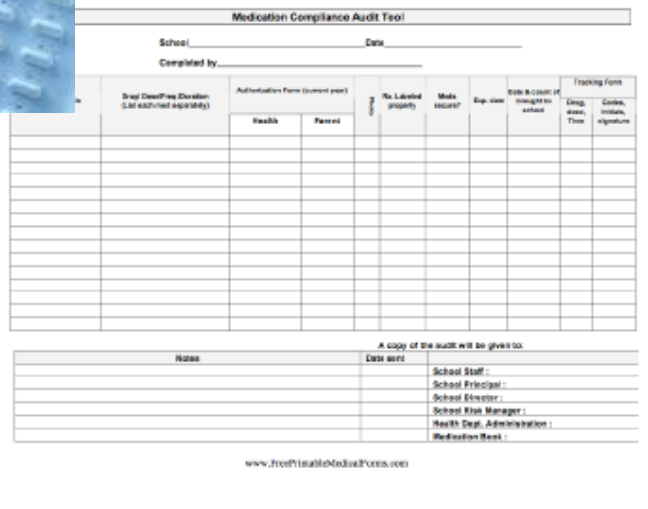
Complexity of Regimens

Adherence Issues: ZDV + ddI + IDV



Source: *Physicians' Desk Reference*®. Medical Economics Co; 1997.




Medication Compliance Audit Tool

School _____ Date _____

Completed by _____

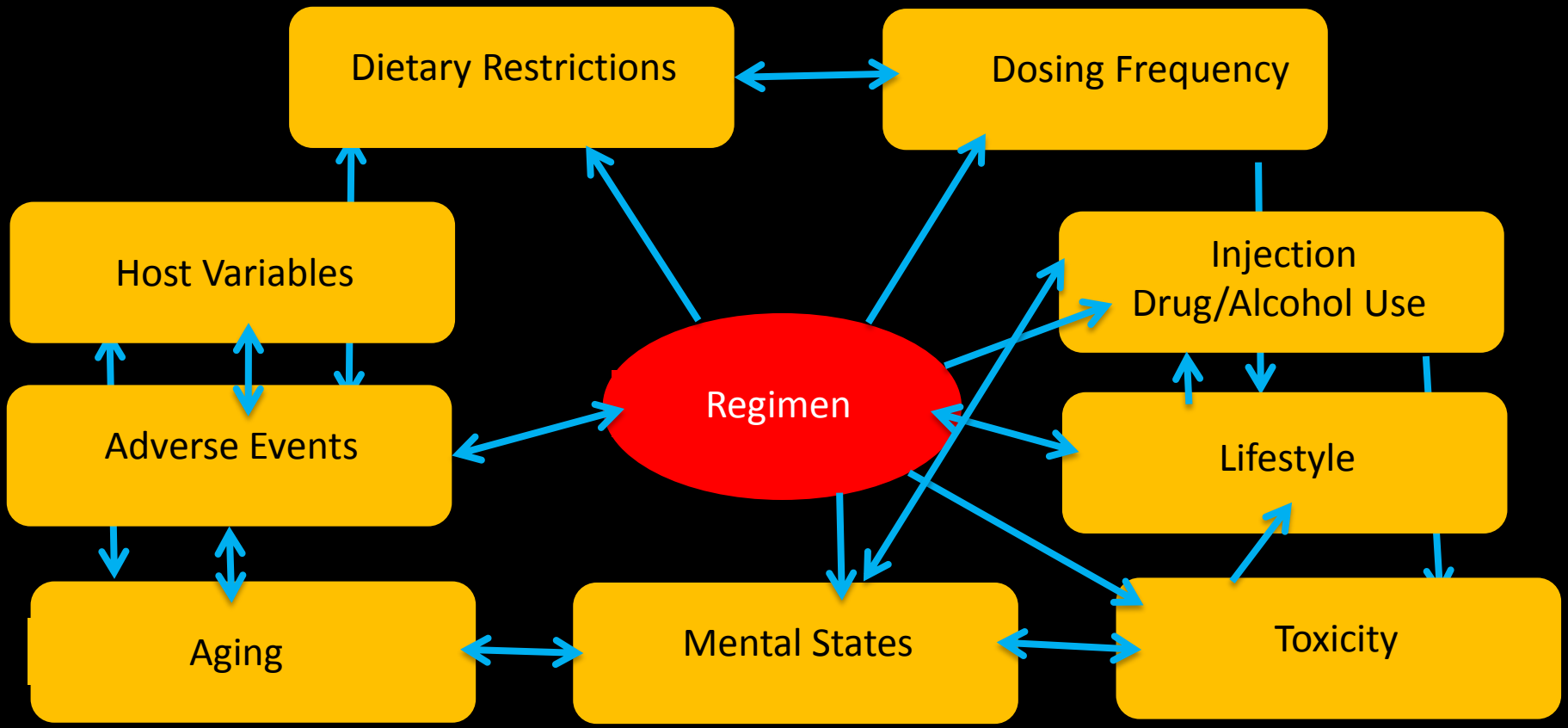
Drug/ Dose/Freq./Duration (List each med separately)	Authorization Form (current year)		Name	No. Labeled properly	Meds secure?	Exp. date	Side B count (# brought to school	Tracking Form	
	Health	Parent						Emrg. assess. Time	Circles, initials, signature

A copy of the audit will be given to:

Notes	Date sent	
		School Staff :
		School Principal :
		School Director :
		School Risk Manager :
		Health Dept. Administration :
		Medication Bank :

www.FreePrintableMedicalForms.com

The Complexity of Adherence



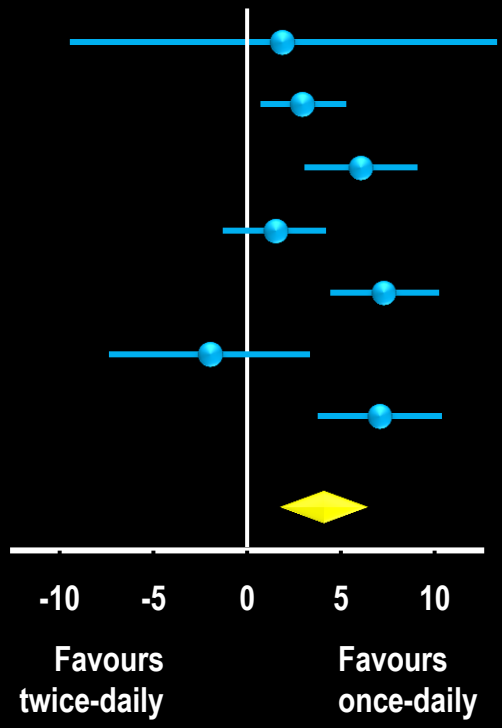
twicedaily

RAL

Pooled adherence ART-naïve patients

Study or subgroup	Once-daily Mean	SD	Total	Twice-daily Mean	SD	Total	Weight	Mean difference IV, Random, 95% CI
Eron 2004 [48]	94	18.3	19	92	17.2	19	3.5%	2.00 [-9.25, 13.29]
Gallant 2006 [49]	90	11.7	244	87	14	243	18.9%	3.00 [0.71, 5.29]
Gonzalez-Garcia 2010 [15]	99	9.9	333	93	25.5	331	16.8%	6.00 [3.05,8.95]
Kubota 2006 [50]	94.3	15.8	411	92.9	15.7	195	17.7%	1.40 [-1.28, 4.08]
Molina 2007 [54]	99.8	11	115	92.6	9.4	75	16.9%	7.20 [4.27, 10.13]
Molina 2008 [53]	82	38.4	401	84	36.7	378	10.5%	-2.00 [-7.27, 3.27]
Podsadecki 2008 [56]	90.8	20.7	310	83.8	20.7	296	15.7%	7.00 [3.70, 10.30]
Total (95% CI)			1833			1537	100.0%	4.00 [1.70, 6.31]

Heterogeneity: Tau^2=5.96; Chi^2=18.93, df=6 (p=0.004); I^2=68%
Test for overall effect: Z=3.40 (p=0.0007)

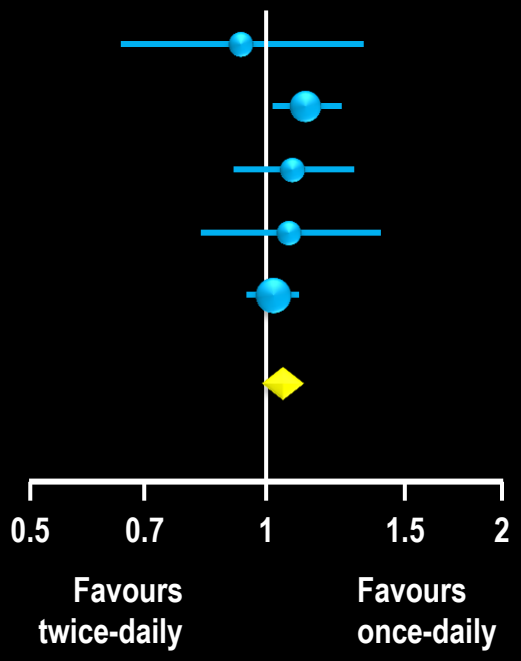


Nachega J *et al*. EACS 2013. Abstr PS4/5

Pooled virologic suppression in ART-naïve patients

Study or subgroup	Once-daily Events	Once-daily Total	Twice-daily Events	Twice-daily Total	Weight	Risk ratio M-H, Random, 95% CI
Eron 2004 [48]	14	19	15	19	2.3%	0.93 [0.65, 1.33]
Gallant 2006 [49]	194	244	171	243	27.3%	1.13 [1.02, 1.25]
Gathe 2008 [60]	145	310	128	296	9.4%	1.08 [0.91, 1.29]
Molina 2007 [54]	66	115	40	75	4.2%	1.08 [0.83, 1.40]
Molina 2008 [53]	343	440	338	443	56.7%	1.02 [0.95, 1.10]
Total (95% CI)		1128		1076	100.0%	1.06 [1.00, 1.11]
Total events	762		692			

Heterogeneity: $Tau^2=0.00$; $Chi^2=3.04$, df=4 ($p=0.55$); $I^2=0\%$
Test for overall effect: Z=1.97 ($p=0.05$)



Nachega J *et al*. EACS 2013. Abstr PS4/5

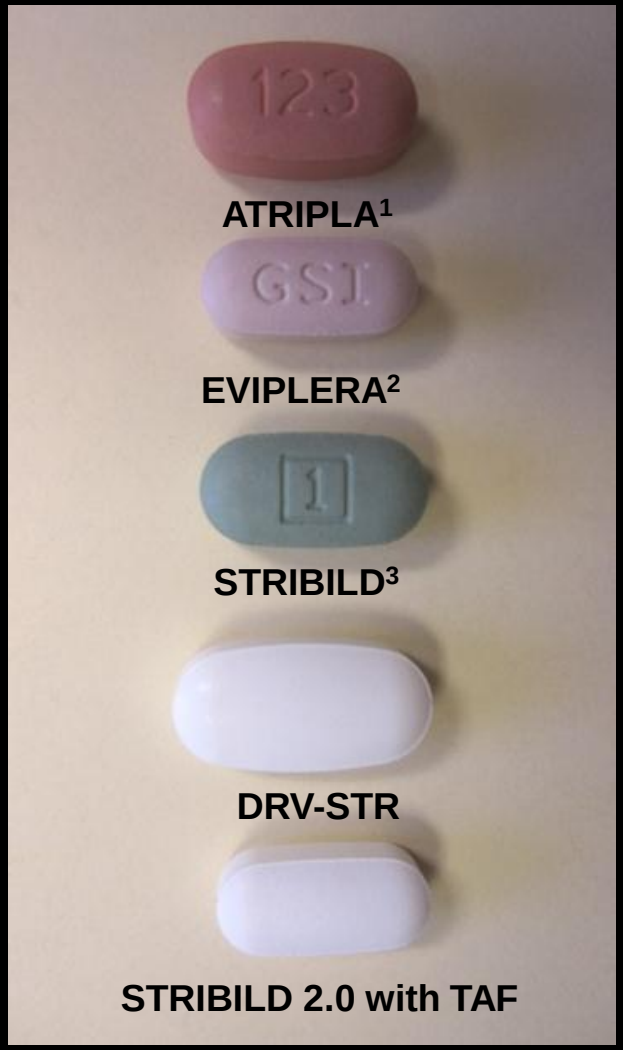
Single Tablet Regimens (STRs)

Current

- **ATRIPLA (1550 mg)**
- **EVIPLERA (1150 mg)**
- **STRIBILD (1350 mg)**

Future

- **DRV-STR (1550 mg)**
  - DRV/COBI/FTC/TAF
- **STRIBILD 2.0 (1050mg)**
- **DOLUTEGRAVIR/ABACAVIR /LAMIVUDINE**



1. Mathias AA, et al. JAIDS;2007;46(2):167-73
2. Mathias AA, et al. IAC 2010; Vienna. THLBPE17
3. German P, et al. JAIDS 2010;55:323–329

Rationale for STRs

STRs can have a positive impact on treatment outcomes of interest

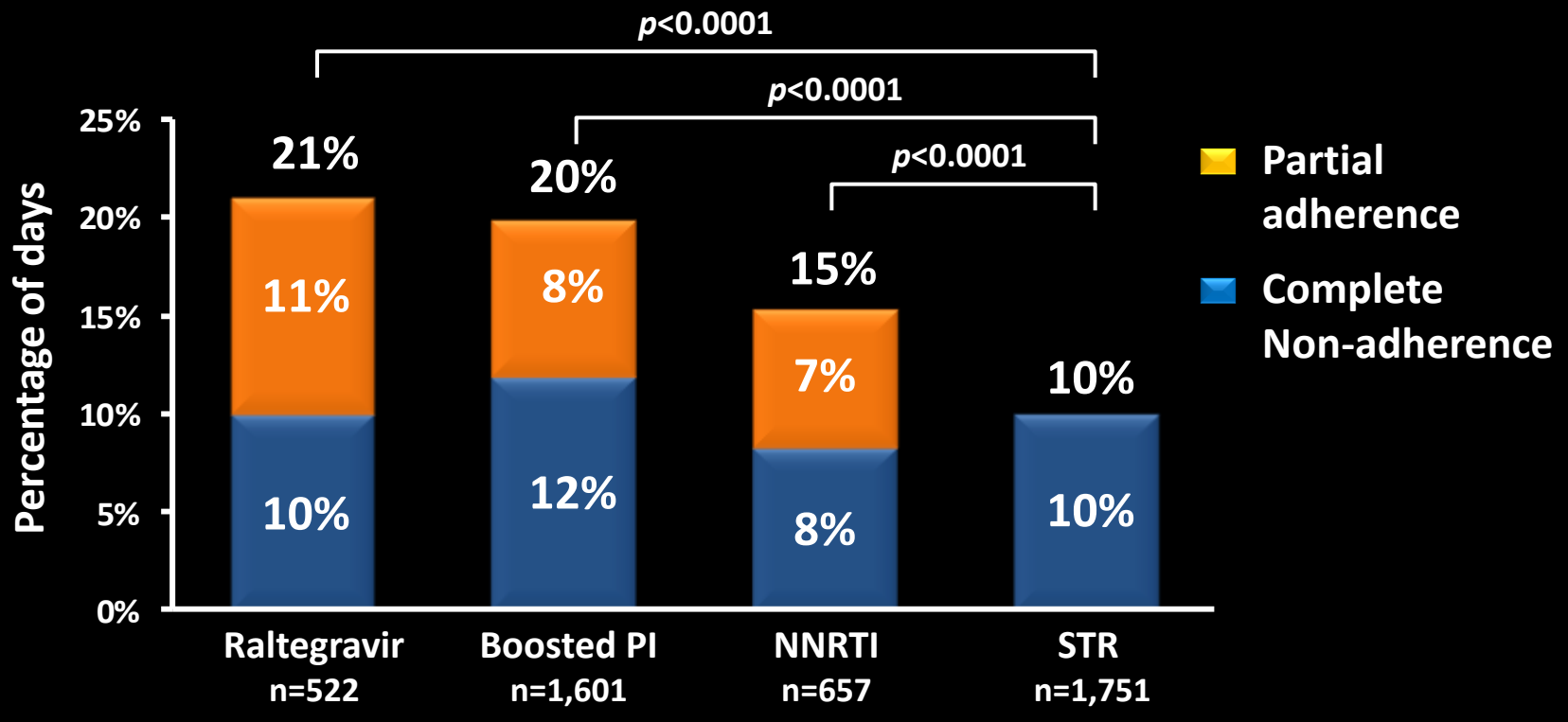
- Adherence[1–2]
  - Improved quality of life
  - No refill misalignment
  - Simultaneous dosing of all ARVs
- Health outcomes & healthcare costs[3–7]
  - Improved virologic outcomes
  - Few discontinuations
  - Remain undetectable longer, potentially reducing transmission
  - Longer duration of therapy
  - Lower risk of hospitalisation
  - Lower healthcare costs
  - Lower pharmacy costs
- Patient convenience
  - Simple[1]
  - Single co-pay

1. Airoldi M, *et al. Patient Preference Adherence* 2010;4:115-125
2. DeJesus E, *et al. JAIDS* 2009; 51:163-174
3. Bangsberg D, *et al. AIDS* 2010;24(18):2835-40
4. Juday T, *et al.* EACS 2009. Cologne. Poster #PE10.1/9
5. Taneja C, *et al.* EACS 2011. Belgrade, Serbia. #PE10.1/2
6. Sax P, *et al.* HIV10 2010. Glasgow. Oral #113
7. Cohen C, *et al.* EACS 2011. Belgrade, Serbia. #PE7.5/7

LifeLink Database

Partial and complete non-adherence to ART regimens

Retrospective analysis of US healthcare claims for commercially insured population (n=4,588) receiving 2 NRTIs plus NNRTI or PI or INSTI based ART (2009–2011)



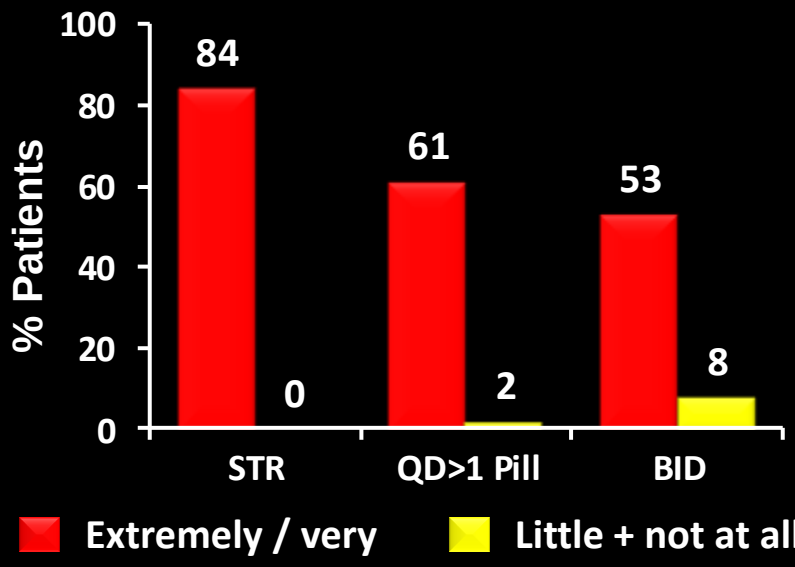
STR patients had significantly more days with a complete regimen

Cohen C, *et al.* ICAAC 2012; San Francisco, CA. #H-211

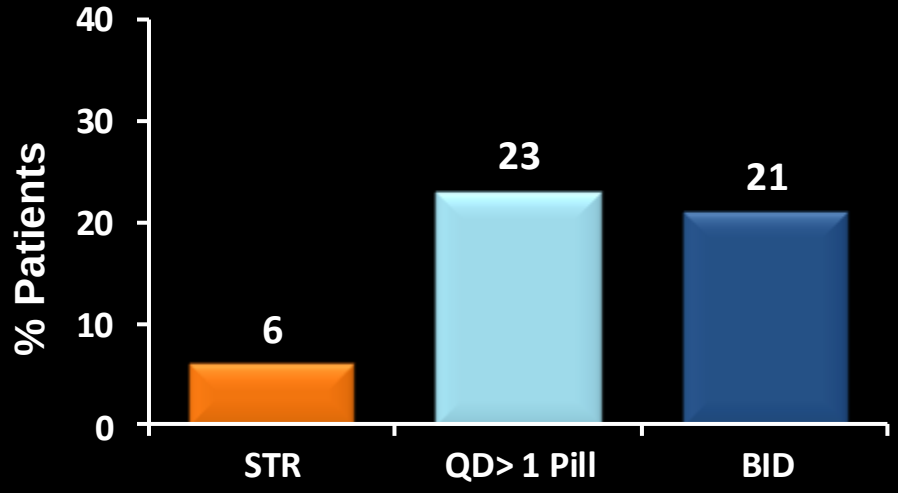
Patient reported outcomes STR enhances patients' acceptability of HAART and self-reported adherence

230 patients on stable HAART completed questionnaires on their attitude towards HAART, adherence level and the acceptability of their regimen[1,2]

Patient reported acceptability of current HAART regimen[1]



Self-reported non-adherence[2]



Suboptimal adherence defined as self-reporting having missed at least one dose during the past week

Patients receiving a STR reported a higher acceptability of their regimen and better adherence compared with those receiving more complex regimens

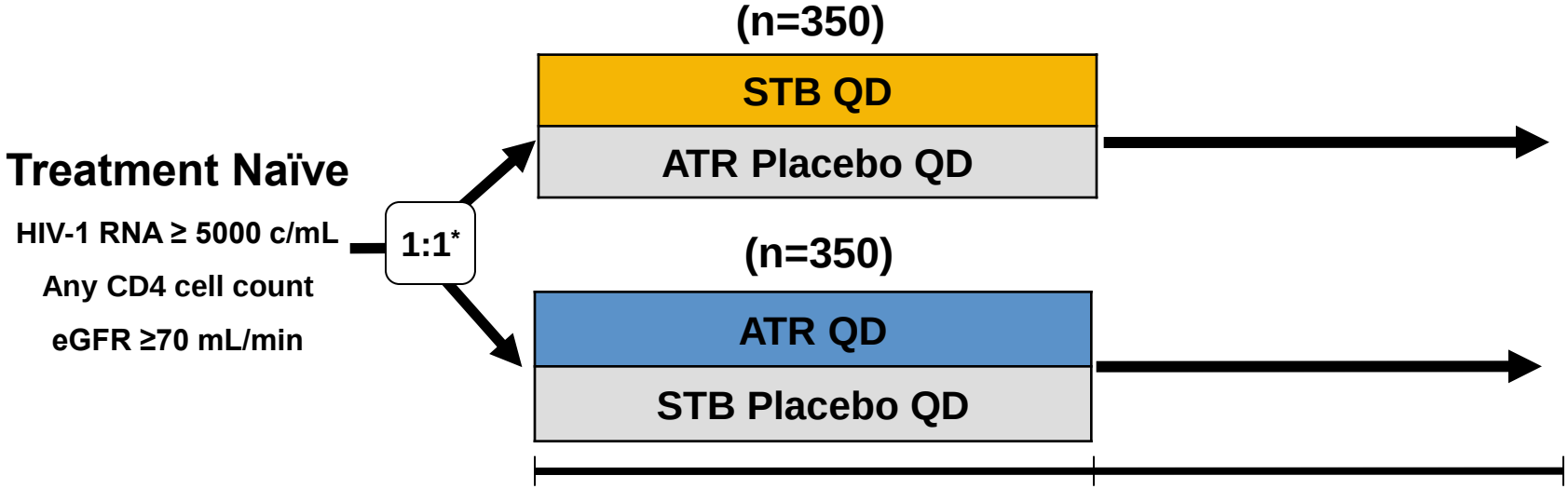
1. Maggiolo F, *et al.* HIV-11 2012. Glasgow. P18;
2. Murri R, *et al*. HIV-11 2012. Glasgow. P16

‡

Study Design

Study 102

Randomized, double-blind, double dummy, active-controlled study



*Randomization stratified by screening HIV-1 RNA (≤ vs >100,000 c/mL)

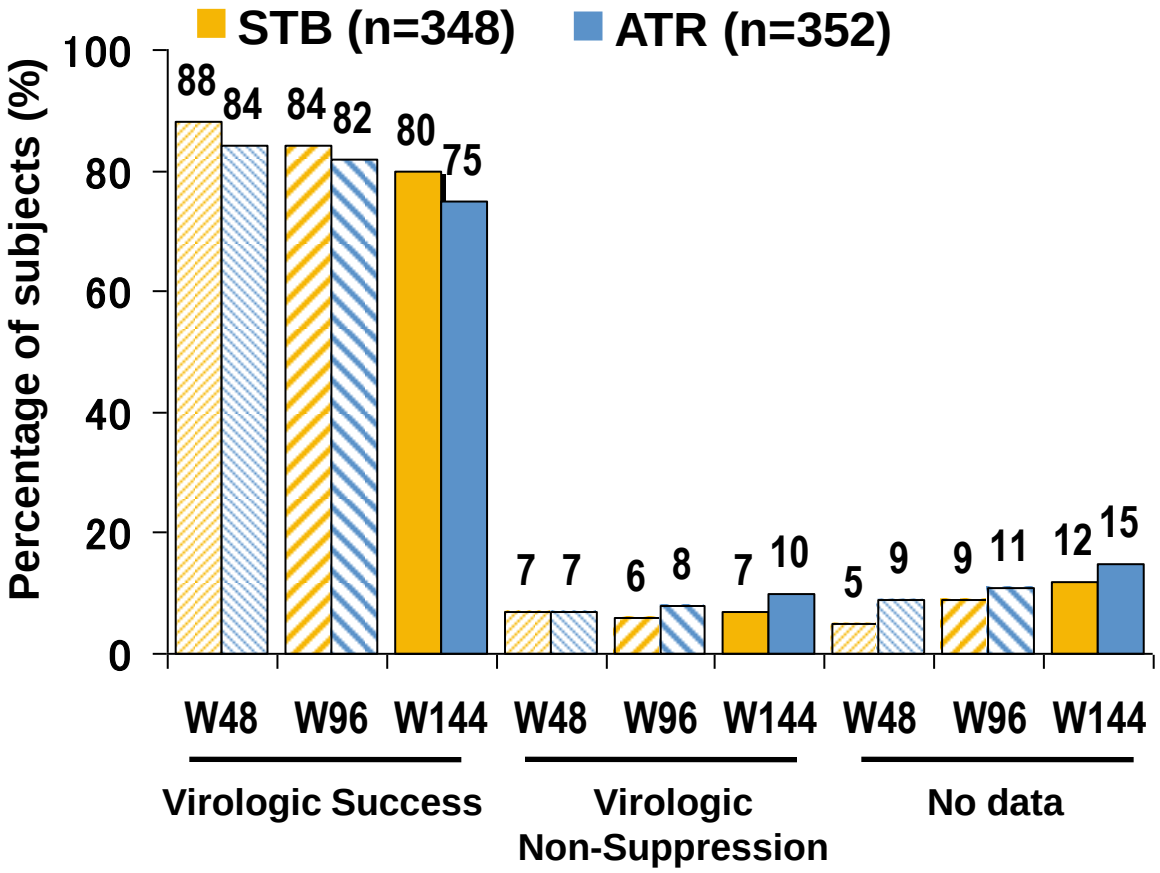
HIV-1 RNA < 50 c/mL by snapshot analysis (ITT)
Non-inferiority margin (Wk48): 12%

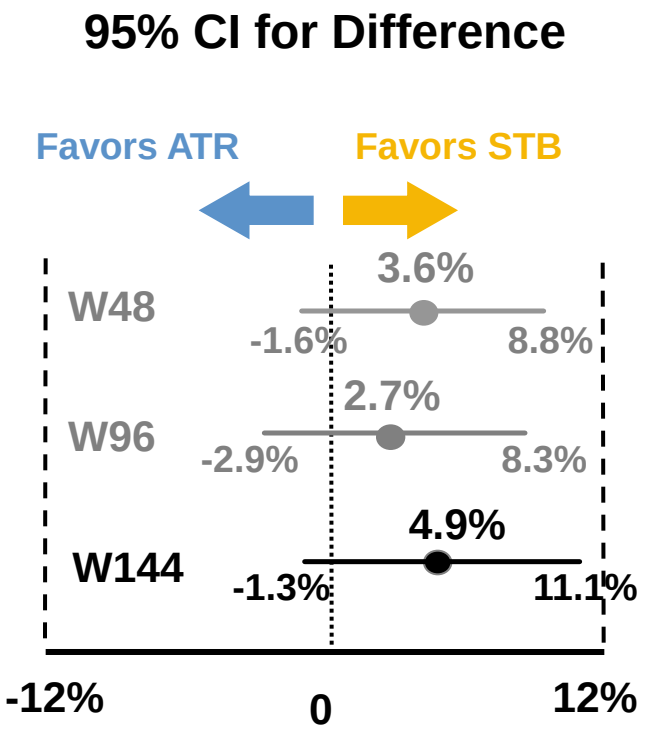
Conducted in parallel with Study 103 comparing STB to ATV/r + TVD

‡

Efficacy Endpoint: HIV-1 RNA <50 c/mL*

Study 102 – Primary (Week 48) and Secondary (Week 96 and 144)





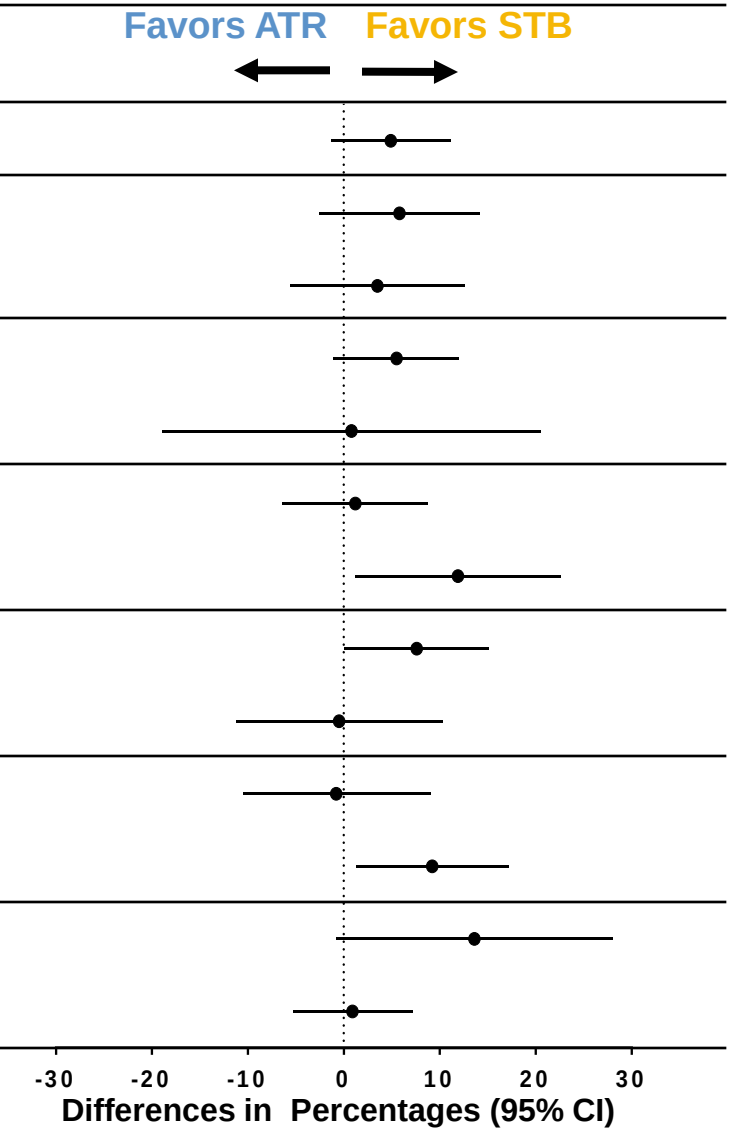
*Virologic success (HIV-1 RNA <50 copies/mL) as defined by FDA Snapshot algorithm

‡

Difference in Efficacy by Subgroup

Study 102 – Week 144

		STB (n=348)	ATR (n=352)
OVERALL		80%	75%
AGE (yrs)	<40	79%	73%
	≥40	82%	78%
SEX	Male	80%	75%
	Female	78%	78%
RACE	White	80%	79%
	Nonwhite	80%	68%
BL HIV-1 RNA	≤ 100K c/mL	82%	74%
	> 100K c/mL	77%	78%
BL CD4	≤ 350 cells/μL	75%	76%
	> 350 cells/μL	84%	75%
Adherence	< 95%	66%	52%
	≥ 95%	85%	84%

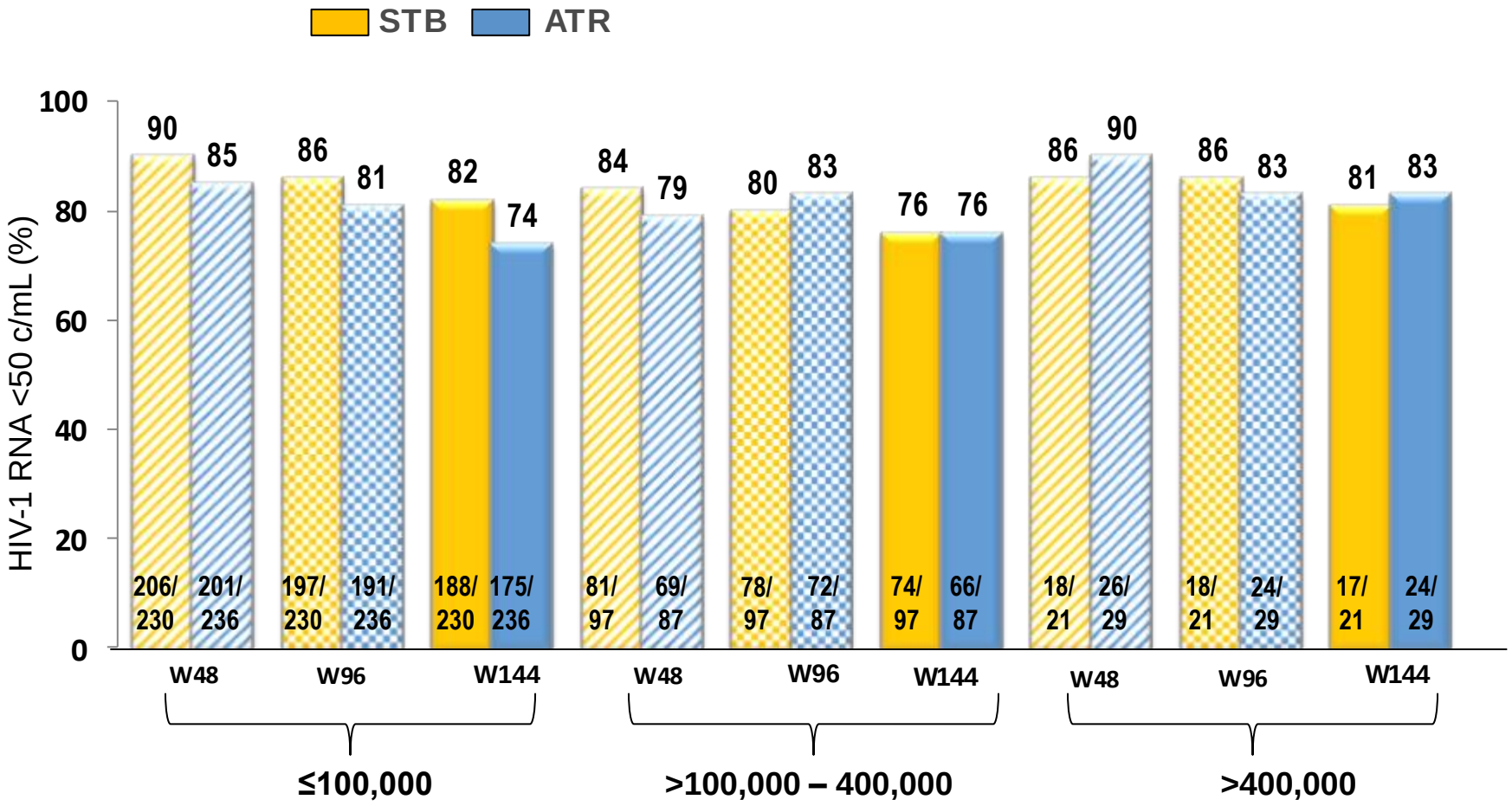


Difference in response rate and 95% CI were calculated based on the MH proportions adjusted by baseline HIV-1 RNA stratum.

‡

Efficacy by Baseline HIV-1 RNA

Study 102 – Week 48, 96, and 144



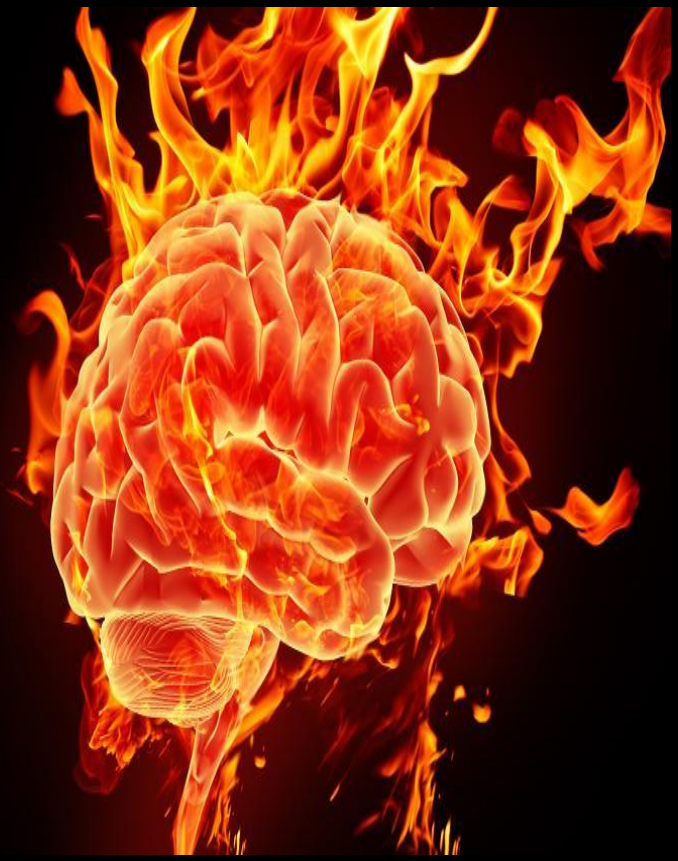
‡

Common Adverse Events (Grade 1-4)

Study 102 – Week 96 and 144

	STB (n=348)		ATR (n=352)	
Adverse Event §	**W96**	**W144**	**W96**	**W144**
Diarrhea	25%	+1%	24%	+2%
Nausea	22%	+1%	15%	+1%
Upper Respiratory Infection	21%	+4%	17%	+5%
Headache	16%	+2%	11%	+2%
Abnormal Dreams	15%	+1%	28%	+1%
Fatigue	13%	+2%	15%	+2%
Depression	12%	+3%	14%	+3%
Insomnia	11%	+1%	16%	+1%
Sinusitis	9%	+3%	11%	+1%
Bronchitis	8%	+3%	7%	+3%
Nasopharyngitis	10%	+1%	8%	+1%
Cough	8%	+2%	6%	+1%
Rash	7%	+2%	14%	+1%
Dizziness	7%	+1%	26%	+0.3%

§ ≥ 10% in either treatment group at Week 144



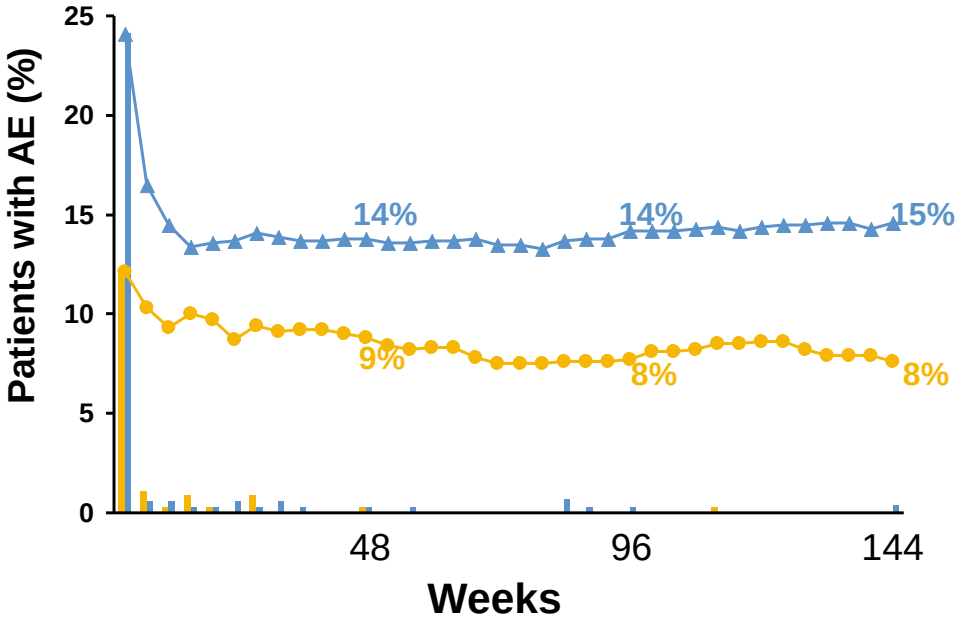
‡

Incidence/Prevalence of Common Neuropsychiatric AEs

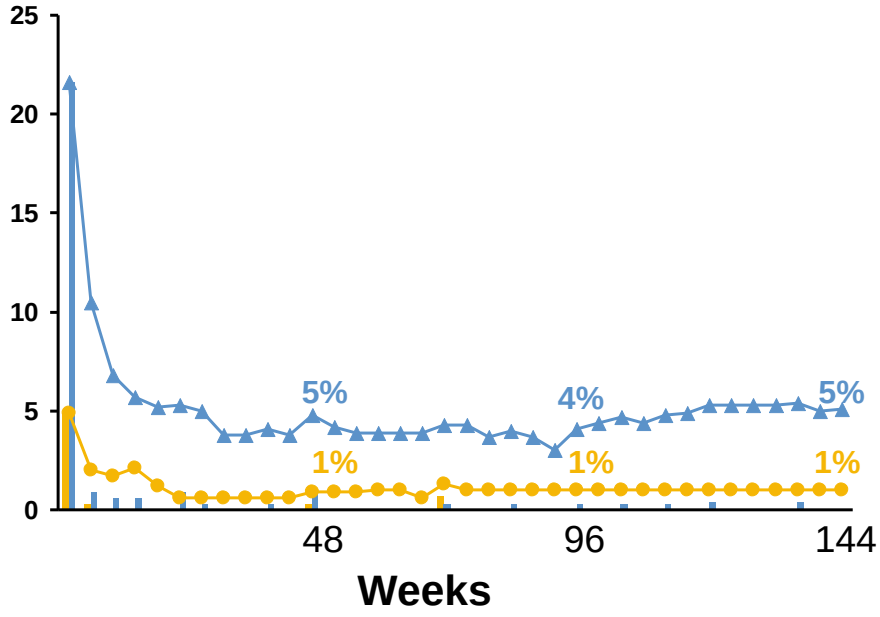
Study 102 – Week 144

STB (n=348) ATR (n=352)

Abnormal Dreams



Dizziness



- Incidence (bar): Patients with new onset AEs at each 4-week window
- Prevalence (line): Patients with AEs at each 4-week window

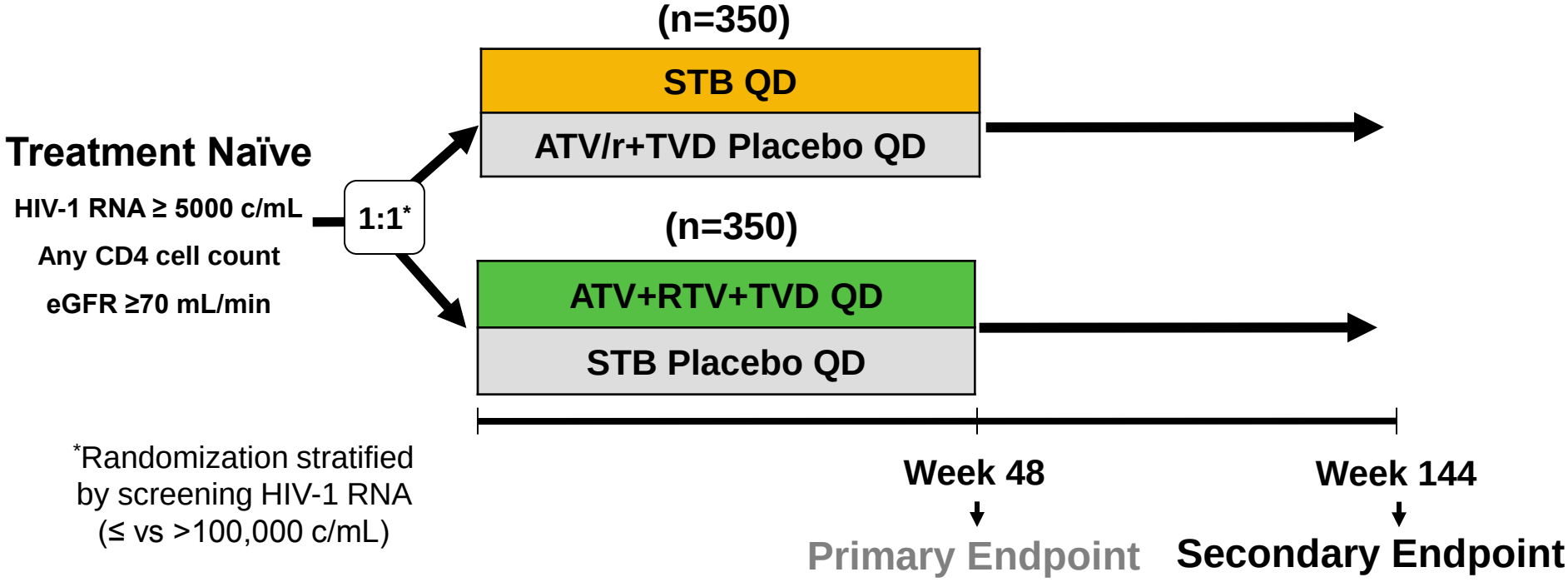
In both groups, most abnormal dreams (STB 96% vs ATR 86%) and dizziness (93% vs 87%) were Grade 1

‡

Study Design

Study 103

Randomized, double-blind, double dummy, active-controlled, international study



*Randomization stratified by screening HIV-1 RNA (≤ vs >100,000 c/mL)

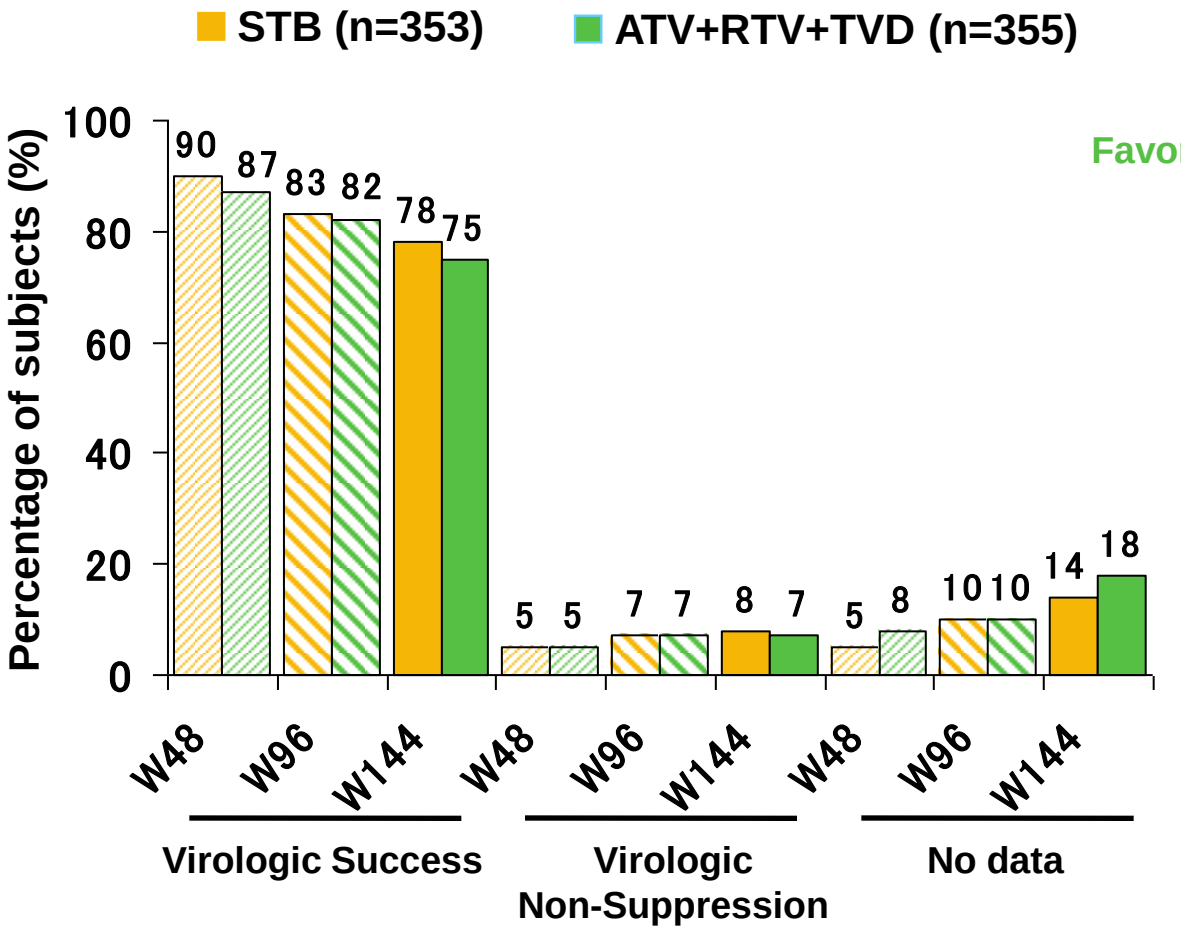
HIV-1 RNA < 50 c/mL by snapshot analysis (ITT)
Non-inferiority margin (Wk48): 12%

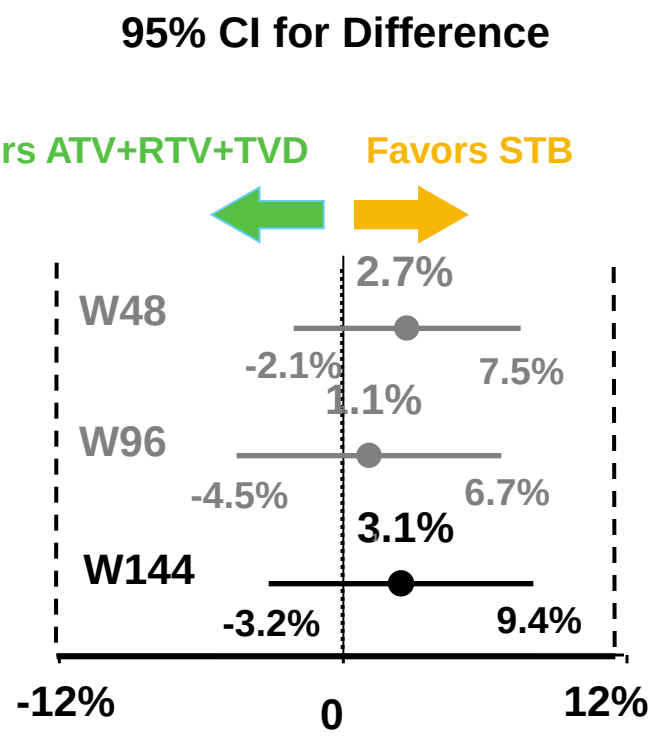
Conducted in parallel with Study 102 comparing STB to ATR

‡

Efficacy Endpoint: HIV-1 RNA <50 c/mL

Study 103 – Primary (Wk 48) and Secondary (Wk 96 and 144)





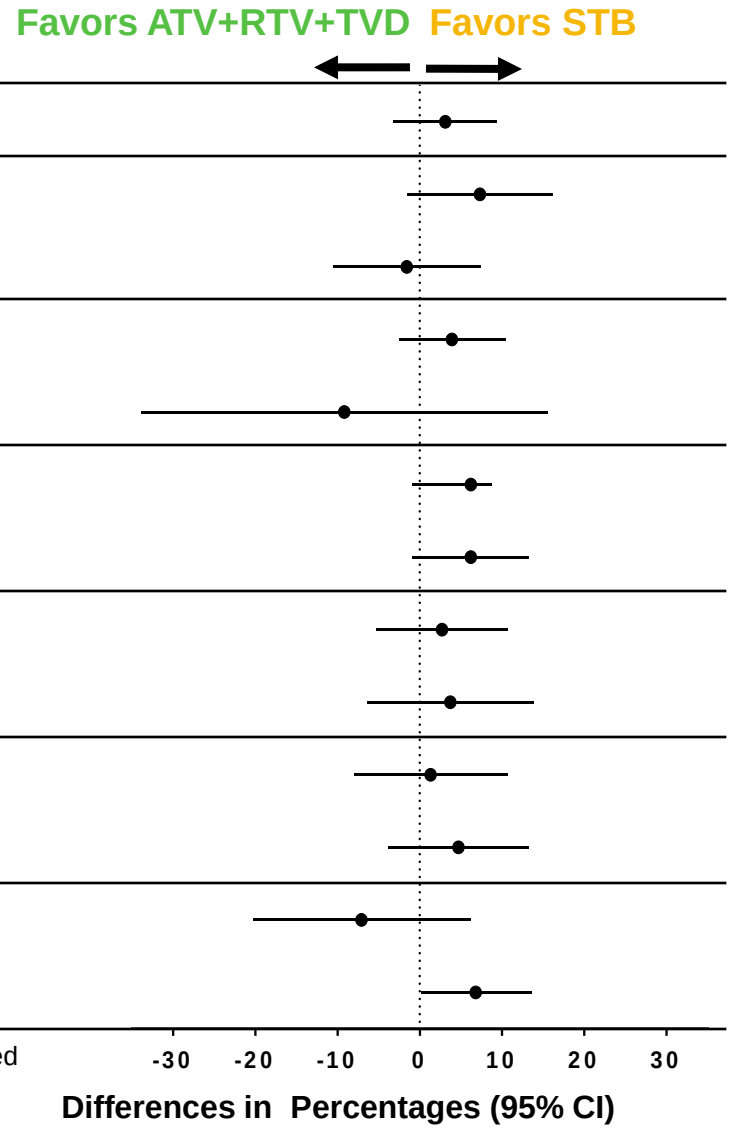
*Virologic success (HIV-1 RNA <50 copies/mL) as defined by FDA Snapshot algorithm

‡

Difference in Efficacy by Subgroup

Study 103 – Week 144

		STB (n=353)	ATV+RTV+TVD (n=355)
OVERALL		78%	75%
AGE (yrs)	<40	76%	69%
	≥40	80%	81%
SEX	Male	80%	76%
	Female	52%	61%
RACE	White	81%	75%
	Nonwhite	69%	73%
BL HIV-1 RNA	≤ 100K c/mL	79%	77%
	> 100K c/mL	75%	72%
BL CD4	≤ 350 cells/μL	76%	74%
	> 350 cells/μL	80%	75%
Adherence	< 95%	60%	66%
	≥ 95%	85%	79%

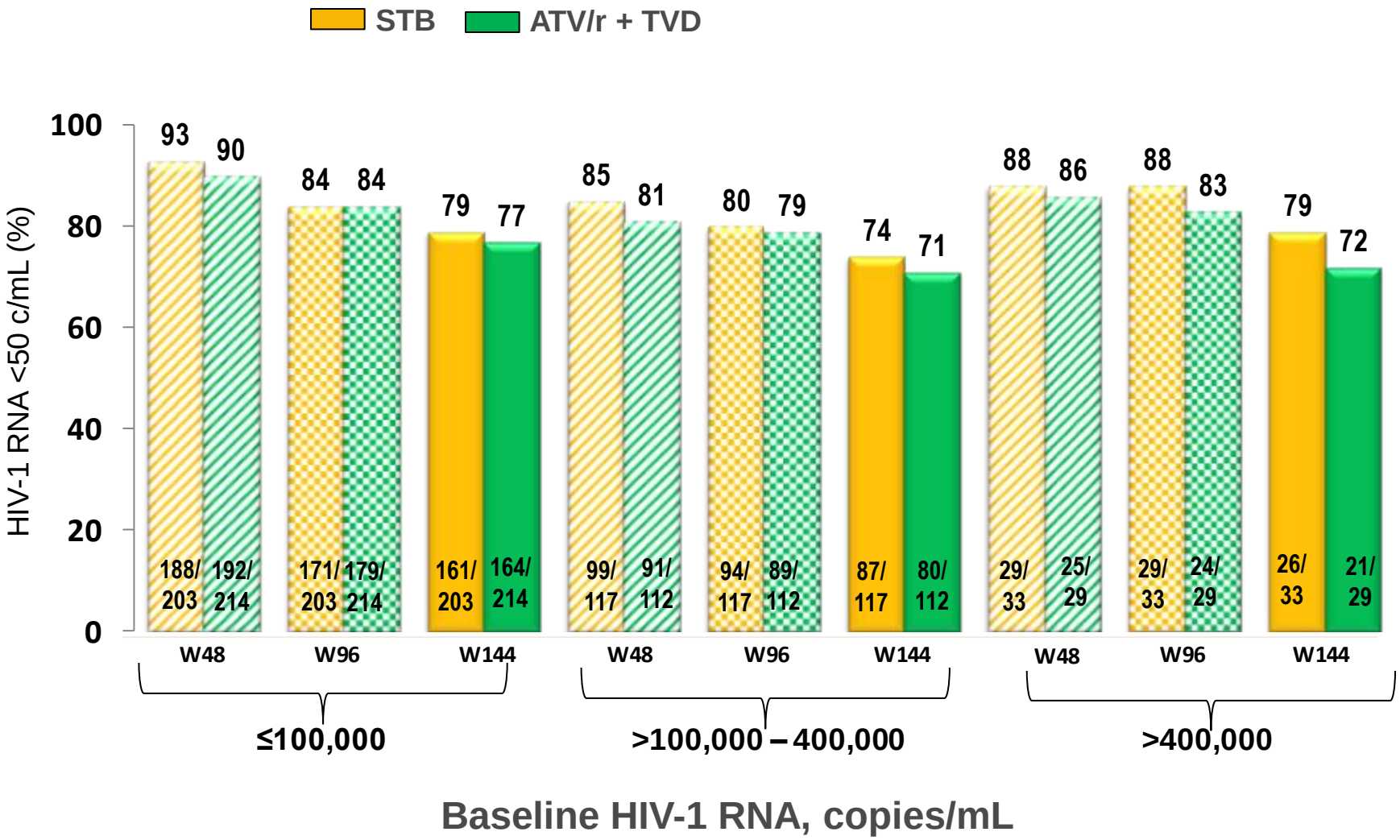


Difference in response rate and 95% CI were calculated based on the MH proportions adjusted by baseline HIV-1 RNA stratum.

‡

Efficacy by Baseline HIV-1 RNA

Study 103 – Week 48, 96, and 144



‡

Common Adverse Events (Grade 1-4)

Study 103 – Week 96 and 144

	STB (n=353)		ATV+RTV+TVD (n=355)	
Adverse Event*	**W96**	**W144**	**W96**	**W144**
Diarrhea	25%	+2%	31%	+2%
Nausea	21%	+1%	21%	+1%
Upper respiratory tract infection	20%	+4%	21%	+5%
Headache	17%	+2%	15%	+1%
Nasopharyngitis	10%	+3%	11%	+5%
Depression	10%	+2%	12%	+2%
Back pain	12%	+1%	5%	+3%
Fatigue	15%	+2%	16%	0.3%
Ocular icterus	0.6%	0	14%	0.3%
Bronchitis	10%	+3%	8%	+3%
Sinusitis	7%	+1%	8%	+2%
Cough	8%	+3%	9%	+2%
Rash	8%	0	9%	+1%

* ≥ 10% in either treatment group cumulatively at Week 144

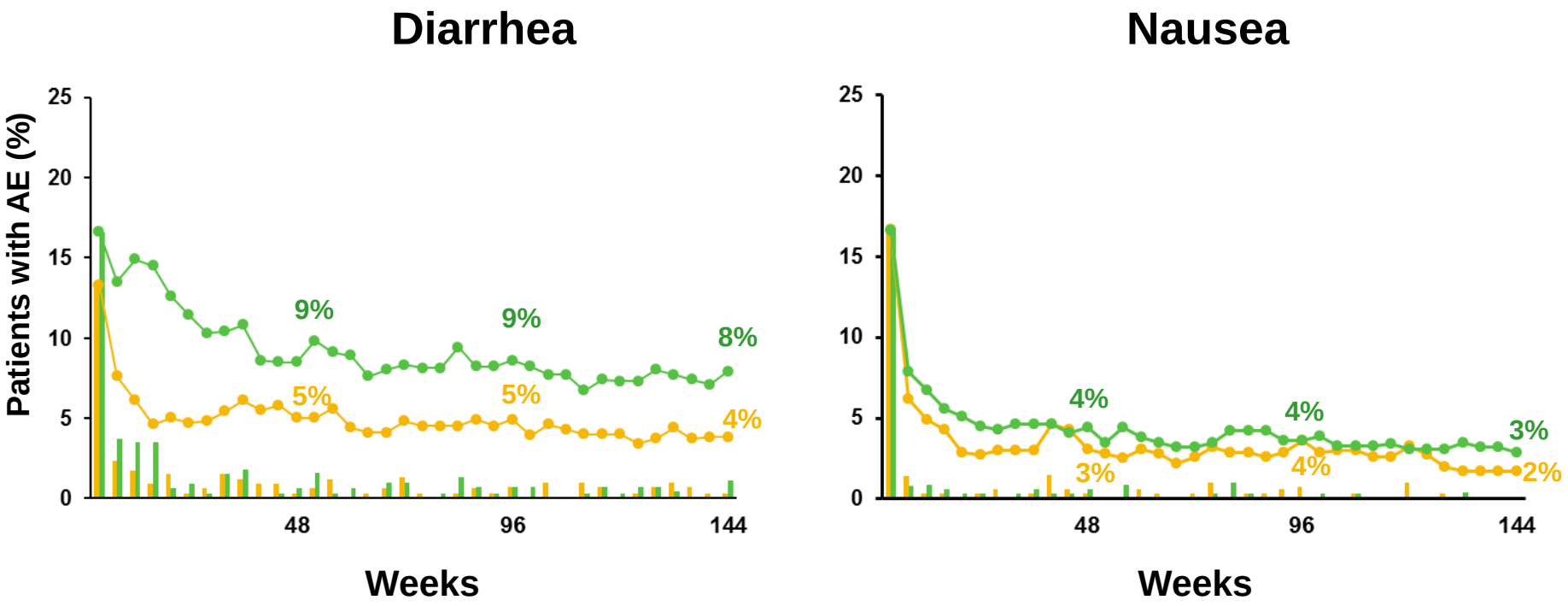

DIARREA
LA DIARREA ES MUY PELIGROSA
DELE A SU NIÑO (A)
SUERO ORAL
MINSA
PCI-NICARAGUA
USAID

‡

Incidence/Prevalence of Common Gastrointestinal AEs

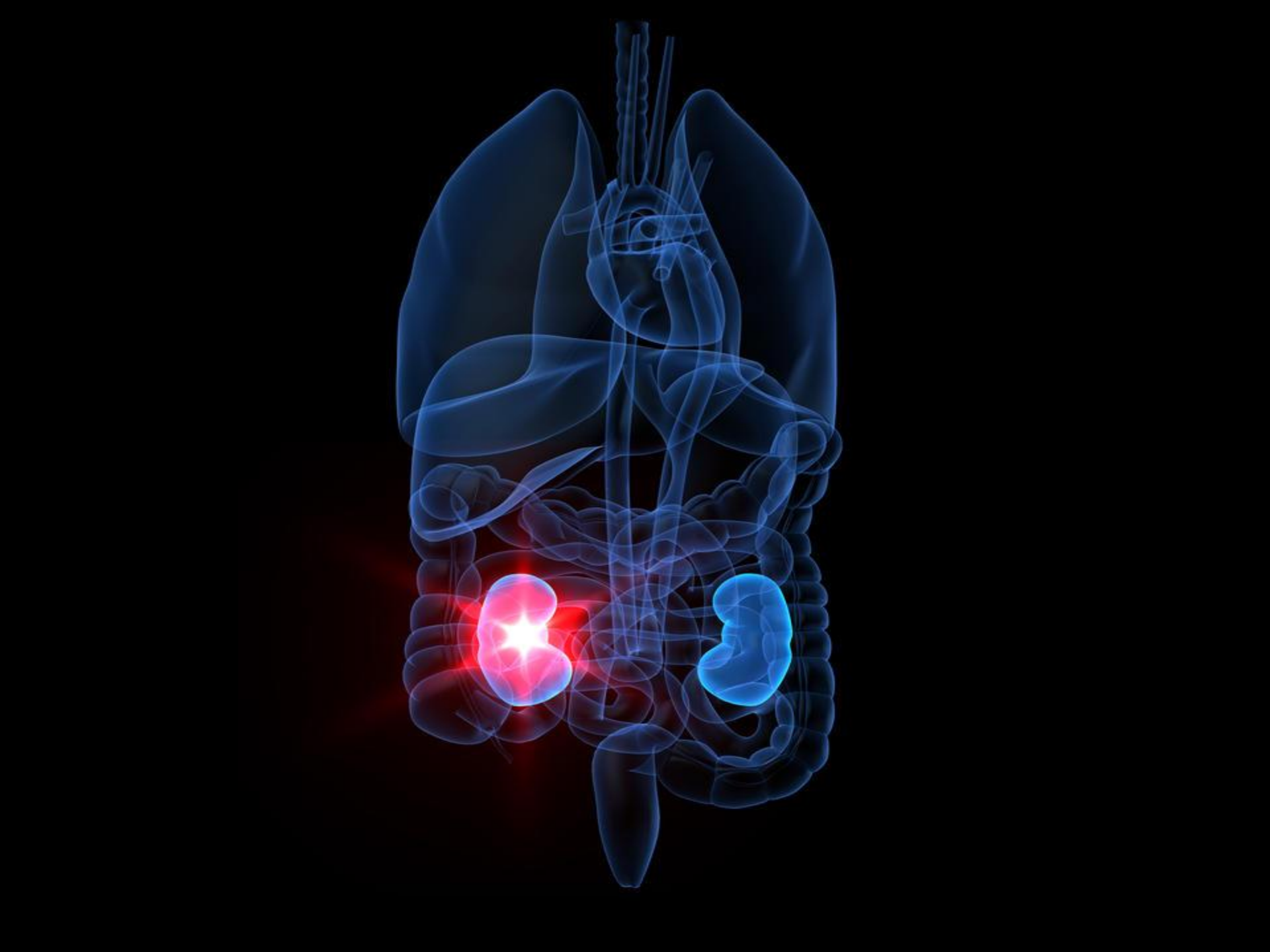
Study 103 – Week 144

STB (n=353) ATV+RTV+TVD (n=355)



- Incidence (bar): Patients with new onset AEs at each 4-week window
- Prevalence (line): Patients with AEs at each 4-week window

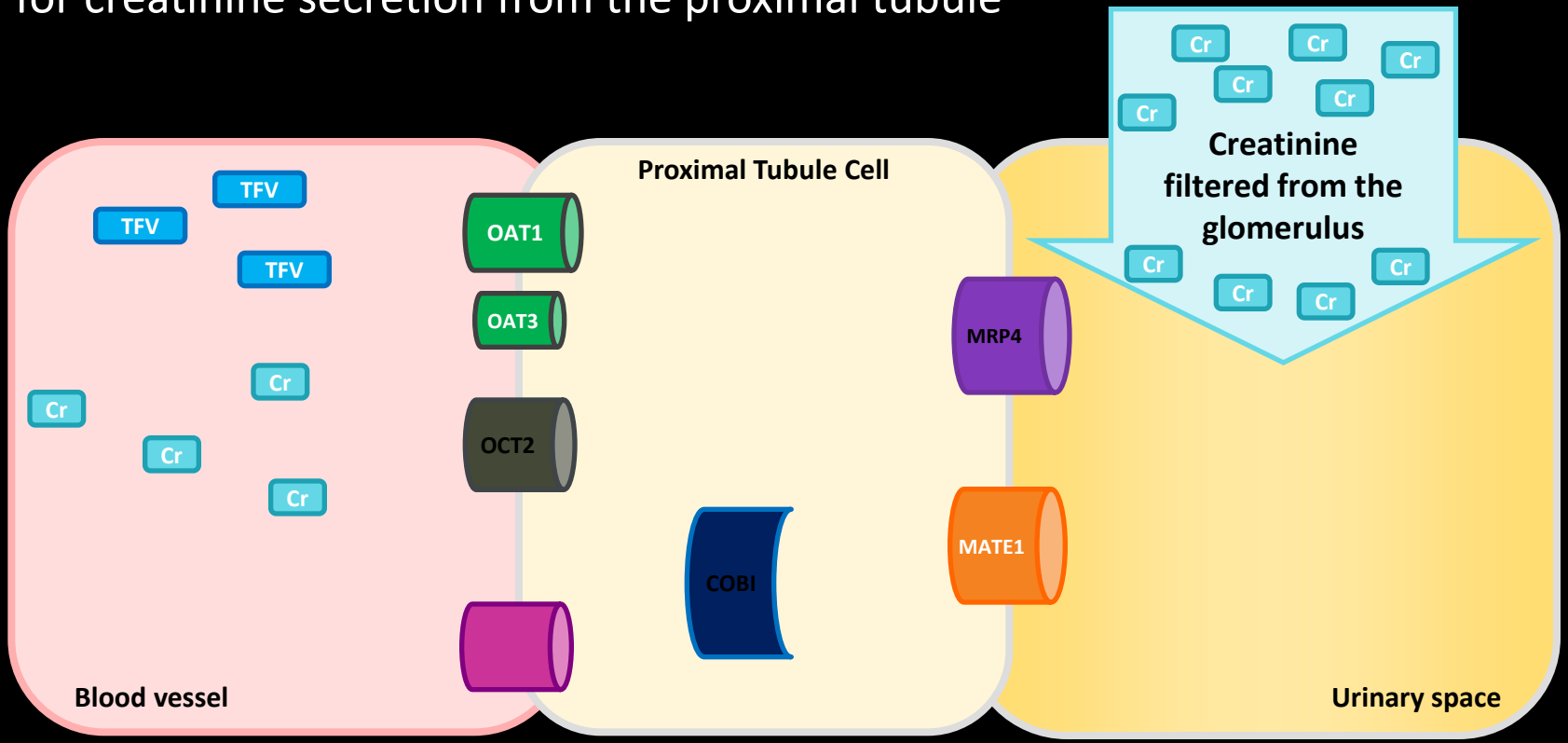
Most diarrhea (STB 68% vs ATV+RTV+TVD 69%) and nausea (84% vs 86%) were Grade 1



Cobicistat Inhibits Active Tubular Secretion of Creatinine

Resulting in Increased Serum Creatinine

- Preclinical studies indicate that cobicistat blocks a transport pathway used for creatinine secretion from the proximal tubule



German P et al. J Acquir Immune Defic Syndr 2012;61:32–40
Lepist EI, Ray AS. Expert Opin Drug Metab Toxicol 2012;8:433–48

‡

Renal AEs Leading to Study Drug Discontinuation

Study 102 and 103 – Week 96

	STB (n=701)	ATV/r+TVD (n=355)	ATR (n=352)
Renal Discontinuation*	**1.6% (11)**	**2.0% (7)**	**0**
PRT	0.6% (4)	0.8% (3)^	0
Non-PRT	1.0% (7)	1.1% (4)	0

*Data are through 18 Feb 2013 (i.e. after 96-week)

^The abstract includes a 4th subject who was later confirmed to not have PRT

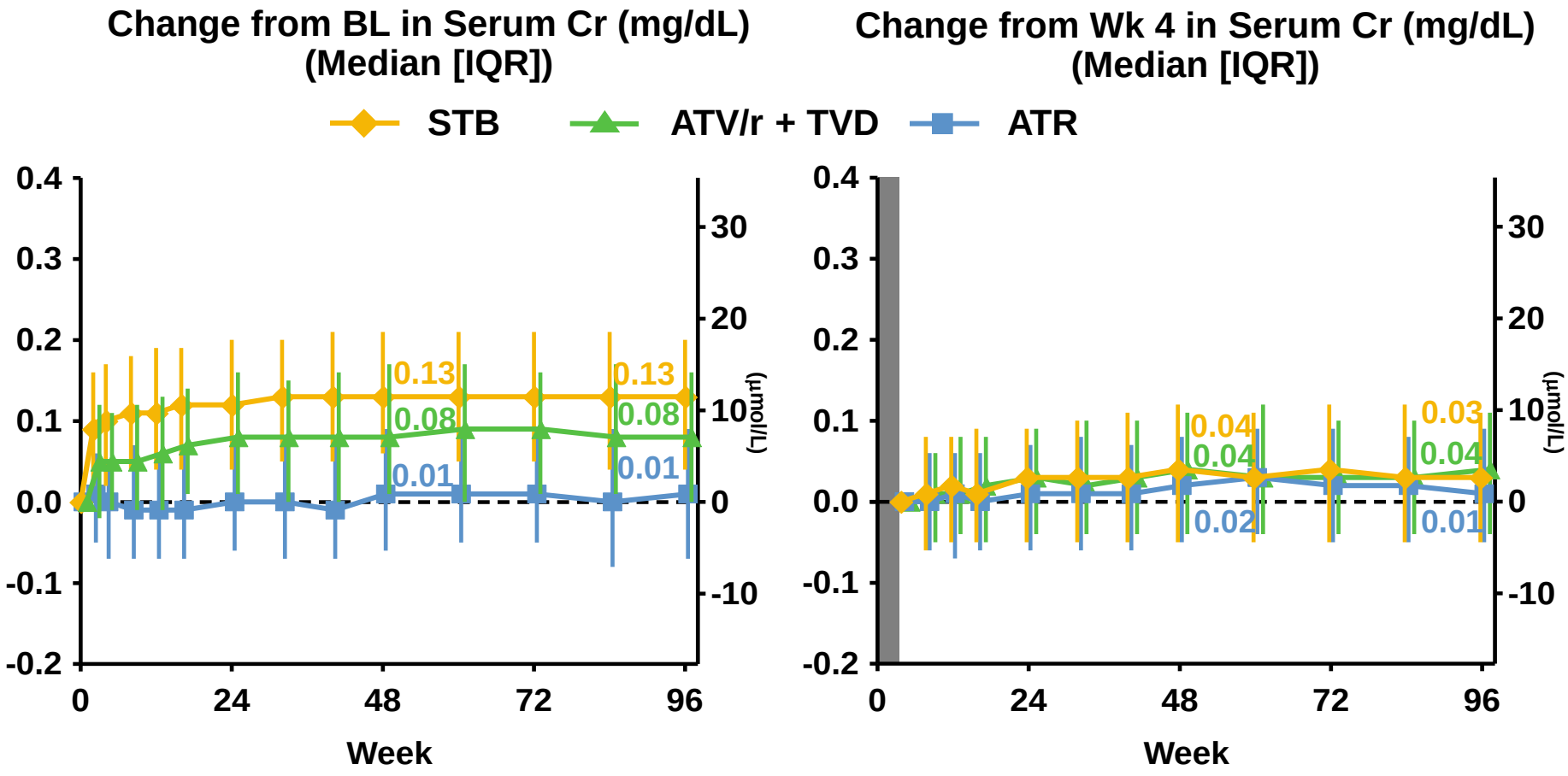
Cases of proximal renal tubulopathy (PRT):

- STB
  - All 4 cases occurred prior to Week 24 with no new cases occurring after Week 24
- ATV/r + TVD
  - All 3 cases occurred after Week 48
- All 7 cases improved after study drug discontinuation

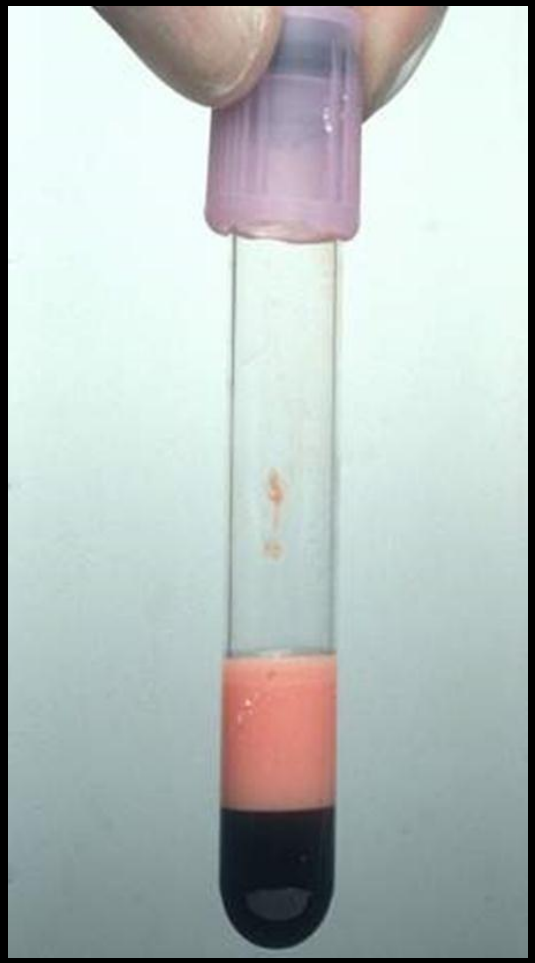
‡

Changes in Serum Cr from Baseline and Week 4

Study 102 and 103 – Week 96



In STB group, the increase in serum Cr occurred in the first few weeks and then stabilized



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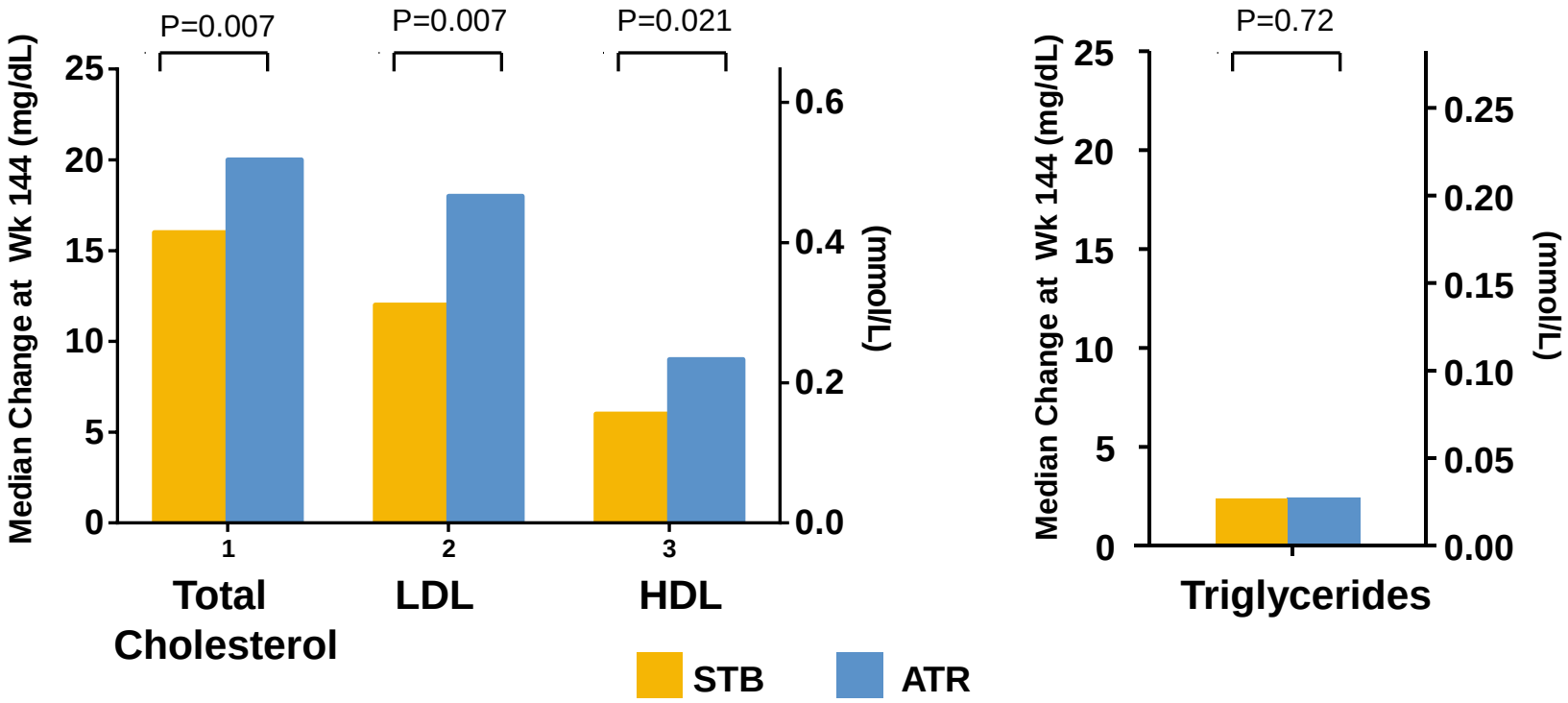
Change from Baseline in Fasting Lipids at Week 144

Study 102 – Week 144

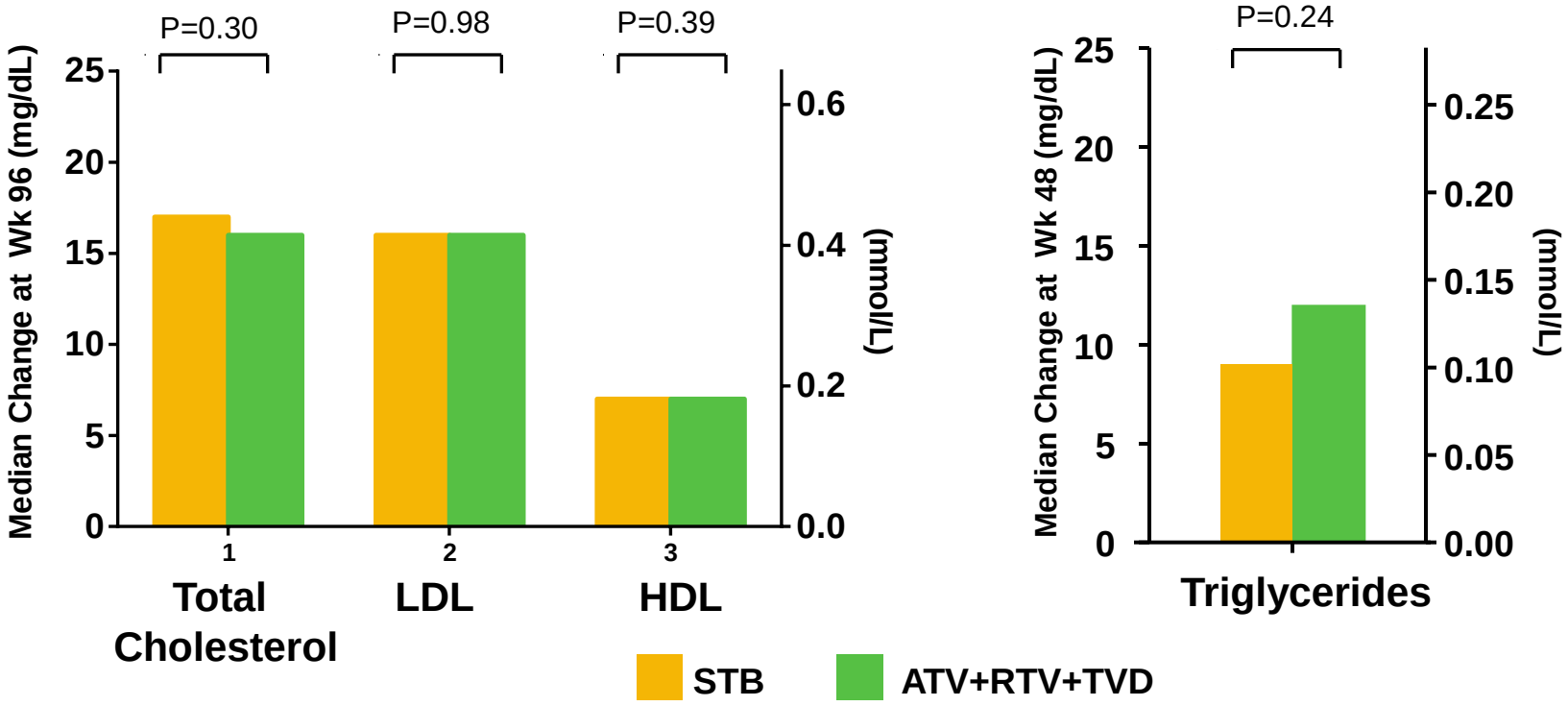


No difference in change in TC to HDL ratio

‡

Changes in Fasting Lipids

Study 103 – Week 144



No difference in change in TC to HDL ratio at Week 144


FAILURE
IS NOT FINAL
...unless you give up.
- Bonnie Pfiester
#Fitness Motivation • © 2013 Bonnie PFIESTER • PFITblog.com

‡

Integrase, NNRTI, NRTI Resistance Through Week 144

Study 102 – Week 96 and 144

		STB (n=348)			ATR (n=352)	
		W96	W144		W96	W144
Resistance Analysis Population, n (%)		17 (4.9%)	21 (6.0%)		23 (6.5%)	28 (8.0%)
Emergent Resistance, n (%)		10 (2.9%)	+0 (+0%)		10 (2.8%)	+4 (+1.1%)
Primary INSTI-R or NNRTI-R, n (%)		9 (2.6%)	+0 (+0%)		10 (2.8%)	+4 (+1.1%)
	E92Q	7	+0	K103N	9	+4
	N155H	3	+0	K101E	3	+2
	Q148R	1	+0	V108I	2	+2
	T66I	1	+0	Y188F/H/L	2	+1
				M230L	2	+0
				V90I	1	+0
				G190A/S	1	+0
				P225H	1	+0
Primary NRTI-R, n (%)		10 (2.9%)	+0 (+0%)		3 (0.9%)	+1 (+0.3%)
	M184V/I	10	+0	M184V/I	3	+1
	K65R	4	+0	K65R	3	+0

‡

Integrase, PI, NRTI Resistance

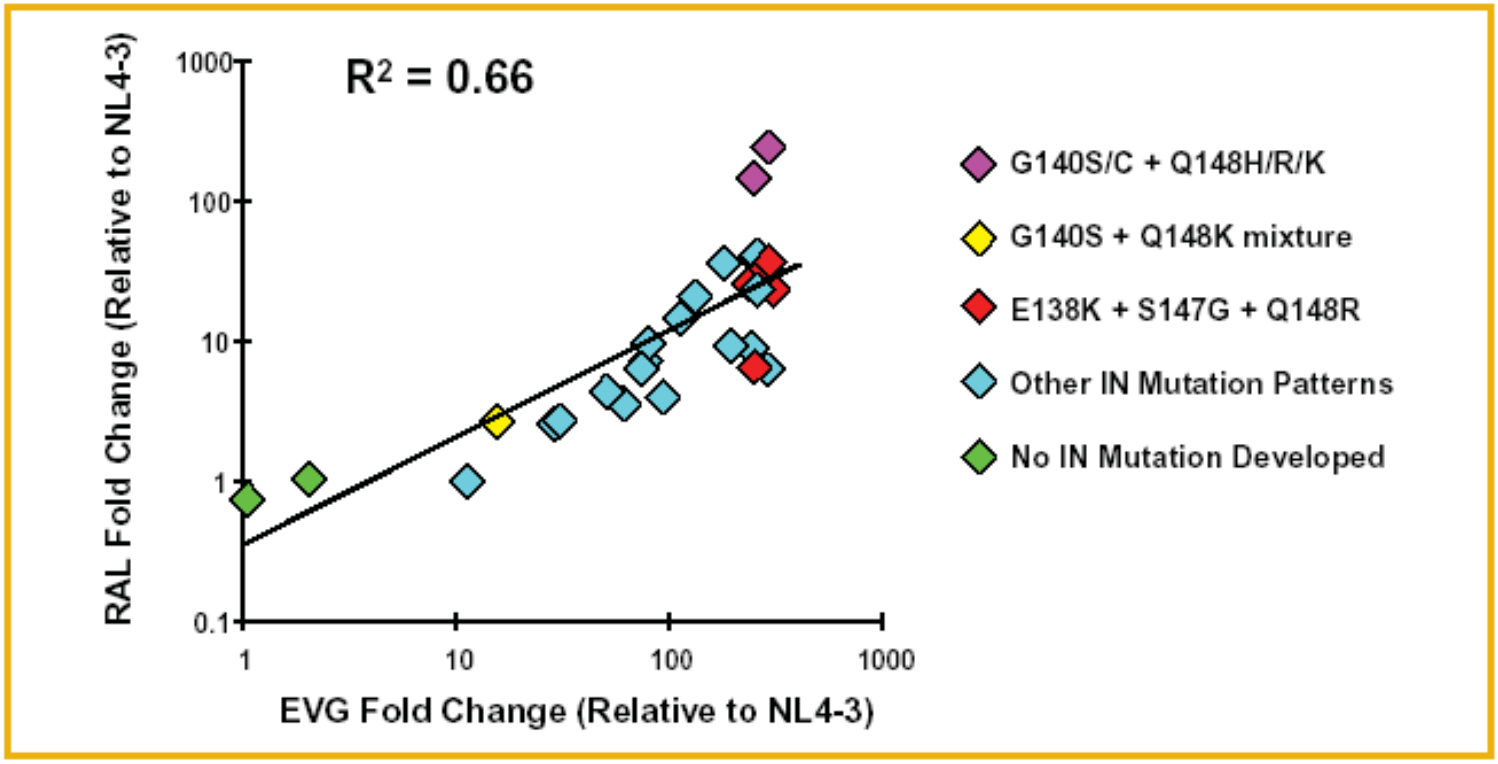
Study 103 – Week 96 and 144

		STB (n=353)			ATV+RTV+TVD (n=355)	
		W96	W144		W96	W144
Resistance Analysis Pop.ulation, n(%)		19 (5.4%)	21 (5.9%)		16 (4.5%)	19 (5.4%)
Emergent Resistance, n (%)		6 (1.7%)	+2 (+0.6%)		0	+2 (+0.6%)
Primary INSTI-R or PI-R, n (%)		5 (1.4%)	+1 (+0.3%)*		0	0
	T66I	1	0	I50L	0	0
	E92Q	2	0	I84V	0	0
	T97A	0	+1	N88S	0	0
	N155H	2	0			
	Q148R	2	0			
Primary NRTI-R, n (%)		5 (1.4%)	+2 (+0.6%)		0	+2 (+0.6%)
	M184V/I	5	+2	M184V/I	0	+2
	K65R	1	0	K65R	0	0

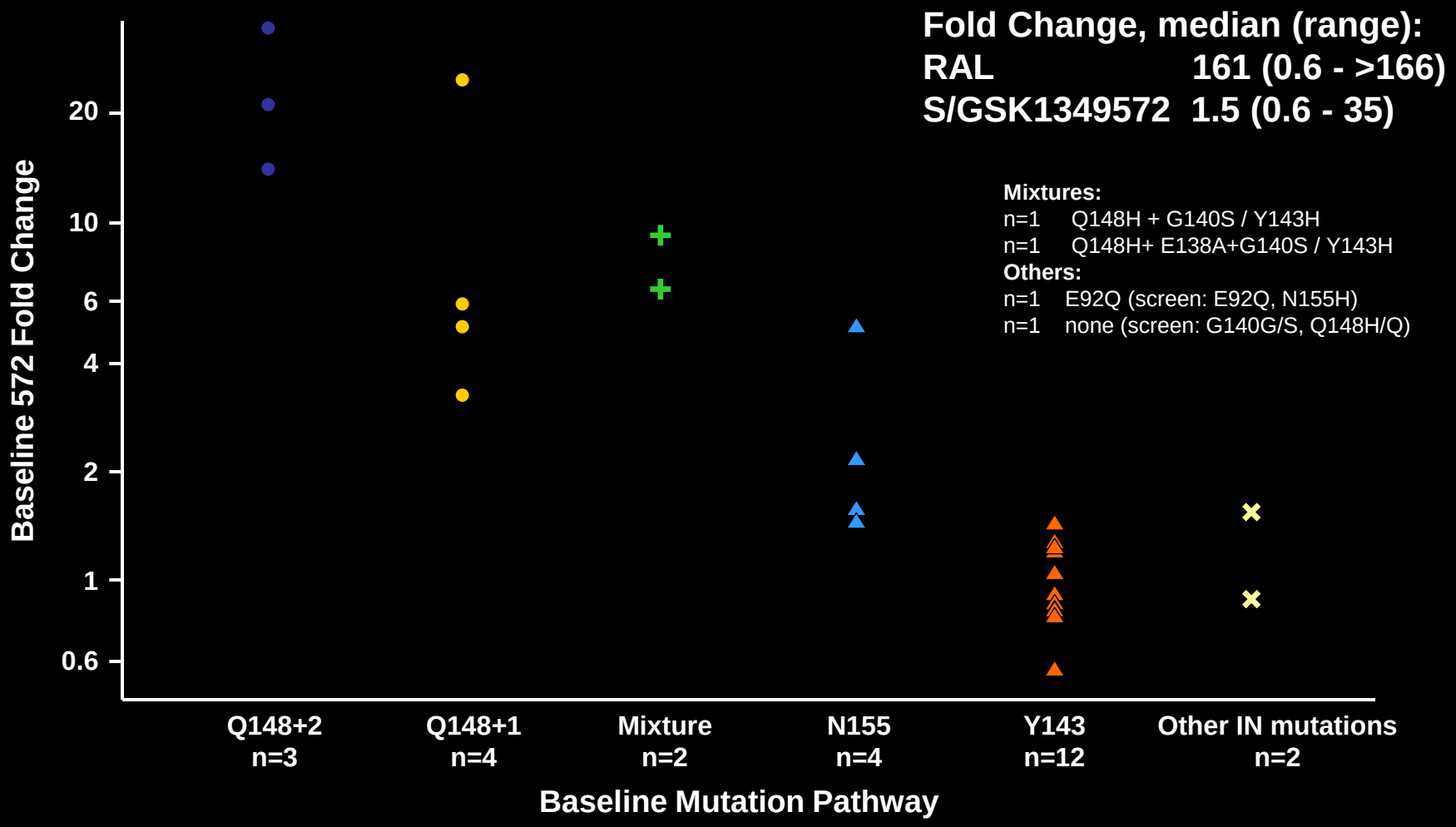
* One patient with emergent M184V/I post-Week 96 had assay failure for the IN gene.

Cross-resistance between EVG and RAL

Figure 5. Correlation of EVG and RAL Susceptibility Among EVG/r 125 mg VF Isolates (n=28)



Baseline (Day 1) Viral IN Mutation Pathways and Phenotypic Susceptibility to S/GSK1349572



- More advanced Q148 pathway genotypes exhibit higher fold change to S/GSK1349572

Efficacy

Tolerability

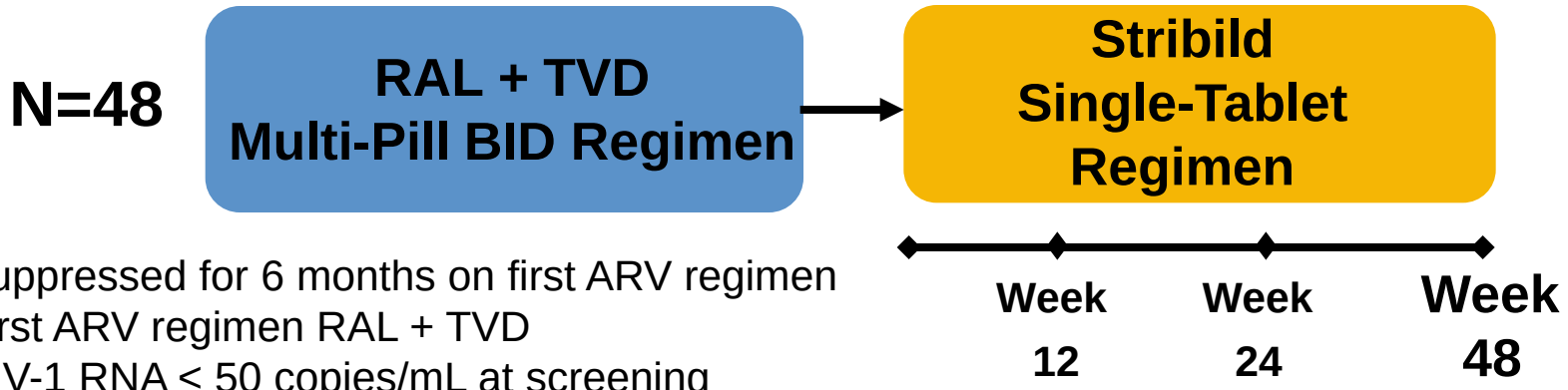
Adherence

‡

RAL + TVD Switch to STB

Study 123

Phase 3b, Open-Label, Multicenter, 48-Week Study



- Suppressed for 6 months on first ARV regimen
- First ARV regimen RAL + TVD
- HIV-1 RNA < 50 copies/mL at screening
- No historical genotypic resistance
- eGFR > 70 mL/min

Primary Endpoint:

HIV-1 RNA <50 c/mL at Week 12 post switch

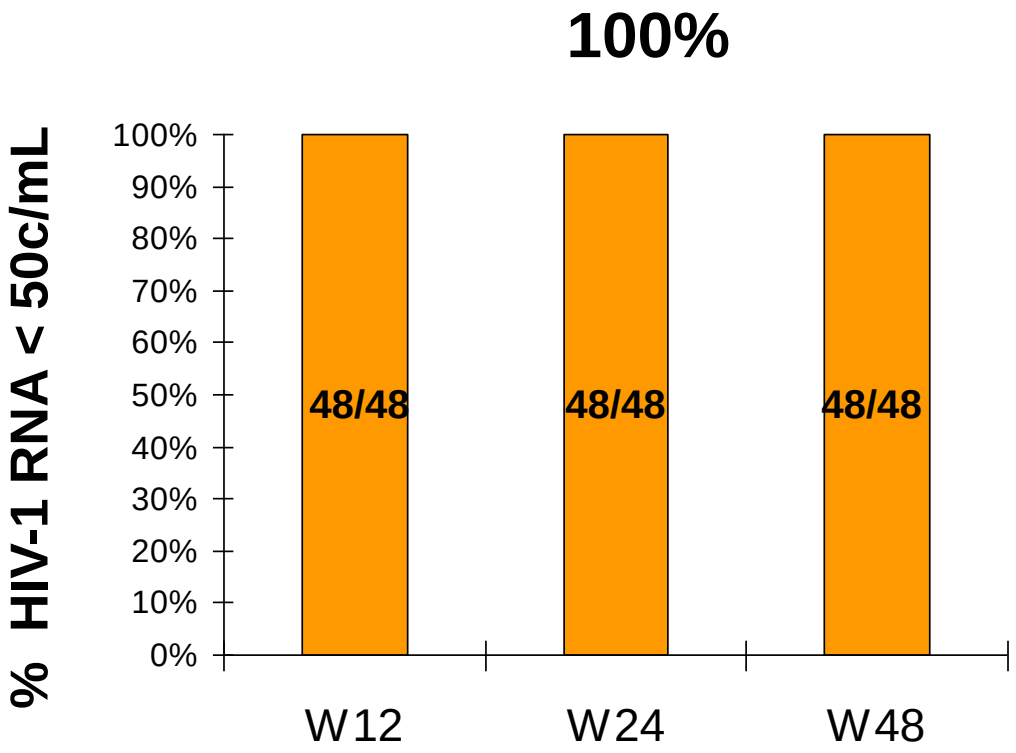
Secondary Endpoints:

Efficacy and safety of Stribild over 24 and 48 weeks

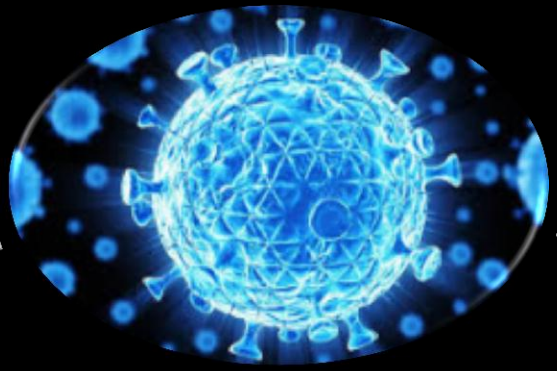
‡

Virologic Suppression after Switching

Study 123 – Week 48

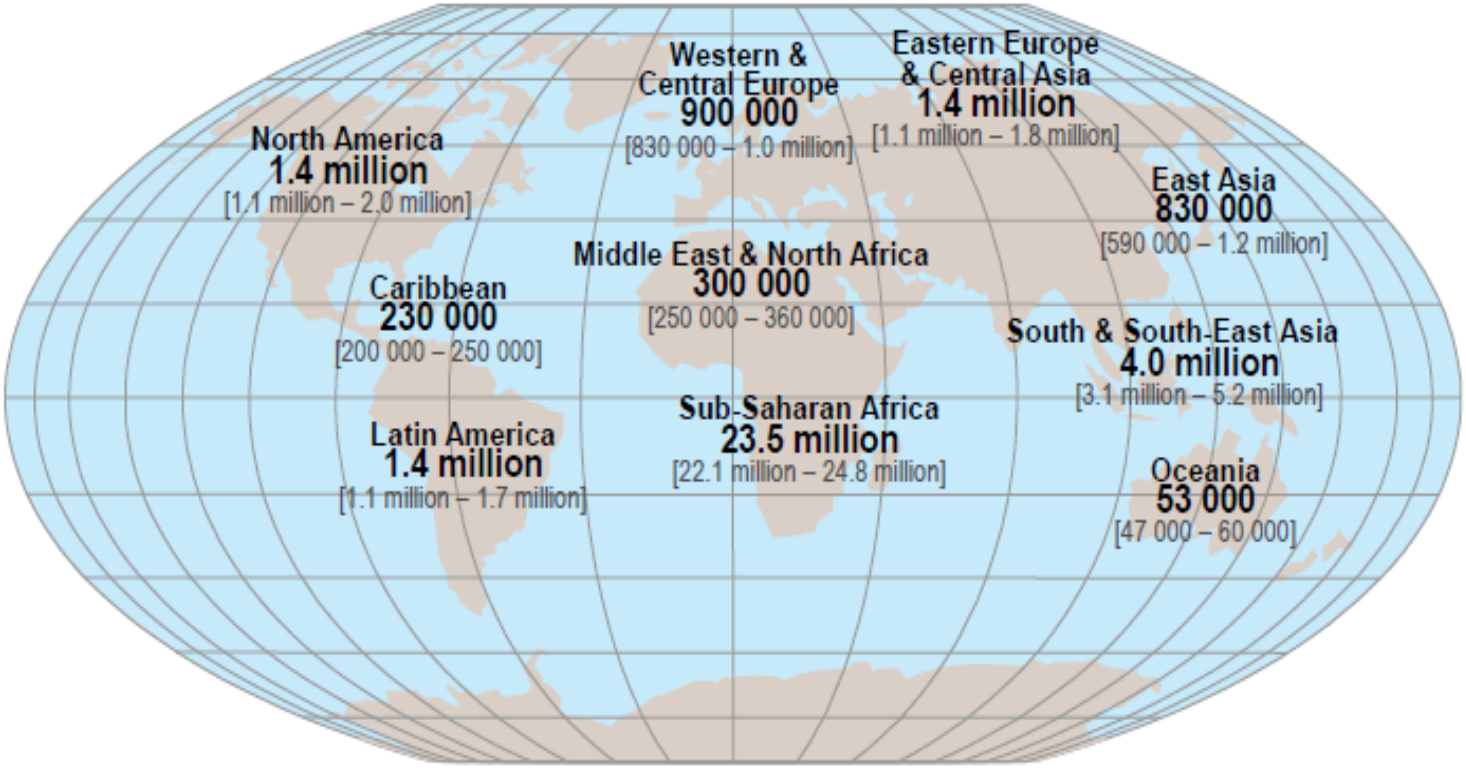


- All subjects remained virologically suppressed post-switch
- No change in CD4 in pre and post switch at Week 48




AIDS

Adults and children estimated to be living with HIV | 2011

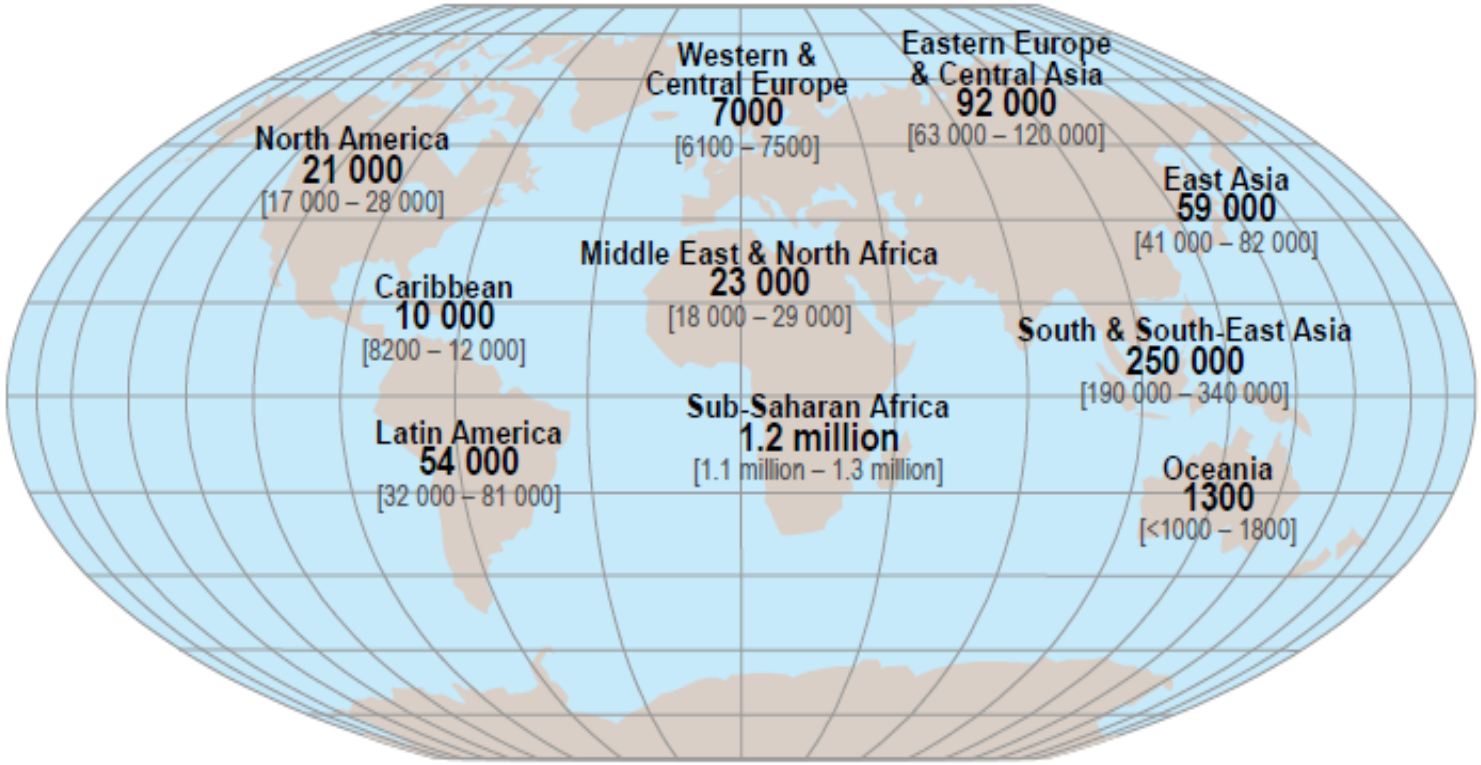


Total: 34.0 million [31.4 million – 35.9 million]

World Health Organization

UNAIDS

Estimated adult and child deaths from AIDS | 2011

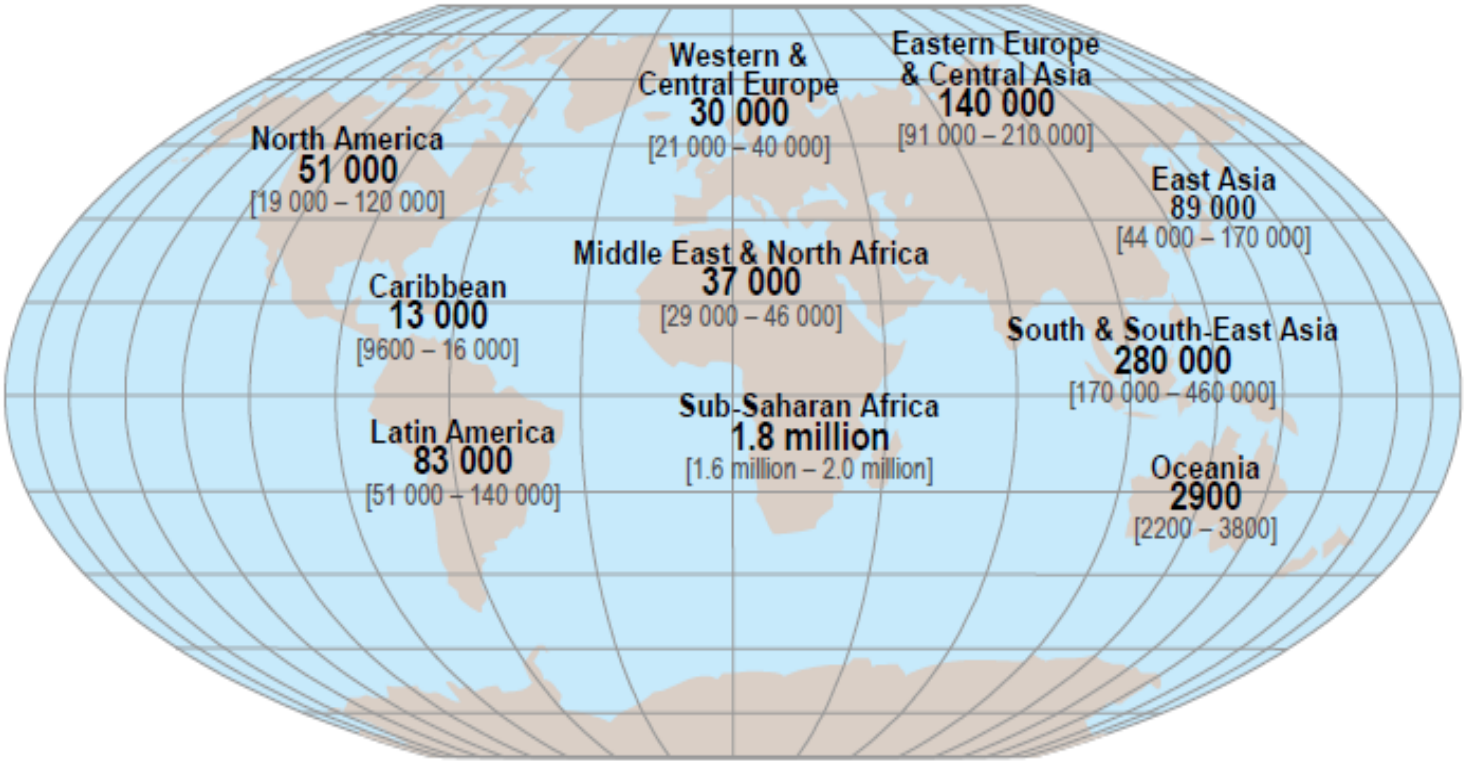


Total: 1.7 million [1.5 million – 1.9 million]

World Health Organization

UNAIDS

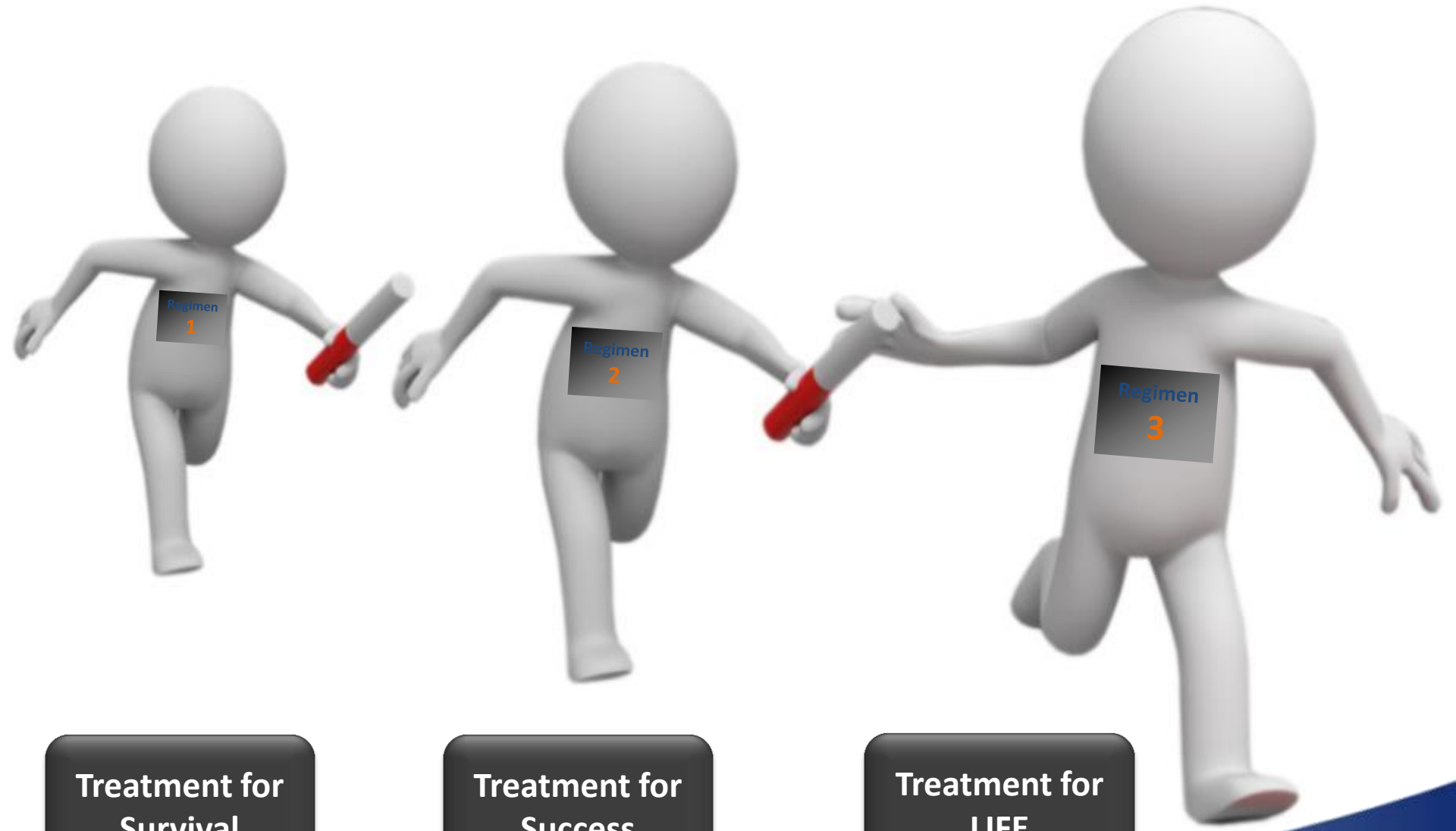
Estimated number of adults and children newly infected with HIV | 2011



Total: 2.5 million [2.2 million – 2.8 million]

World Health Organization

UNAIDS



Treatment for Survival

Treatment for Success

Treatment for LIFE