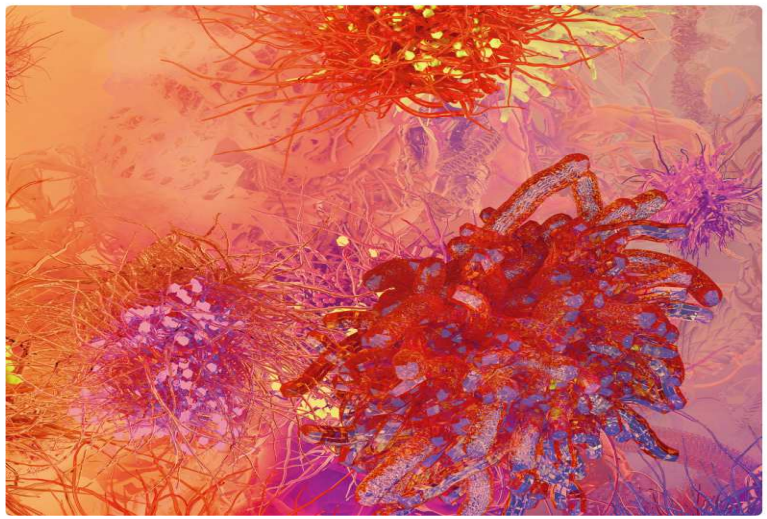
JORNADAS 2018

Actualización y Futuro en VIH



Dr. Santiago Moreno
Servicio de Enfermedades Infecciosas
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Universidad de Alcalá. IRYCIS.
Madrid

sefh Sociedad Española de Farmacia Hospitalaria
fefh Fundación Española de Farmacia Hospitalaria
Grupo de VIH de la SEFH
GHEVI Grupo de Hepatopatías Víricas de la SEFH

Agenda

- Control of the HIV-epidemic
- Coinfections
- Antiretroviral therapy

Agenda

- Control of the HIV-epidemic
  - —In the world
  - —In Europe
- Coinfections
  - —Tuberculosis
  - —Hepatitis C
- Antiretroviral therapy
  - —Guidelines 2017
  - —New drugs
  - —New strategies

Agenda

- Control of the HIV-epidemics
  - In Europe
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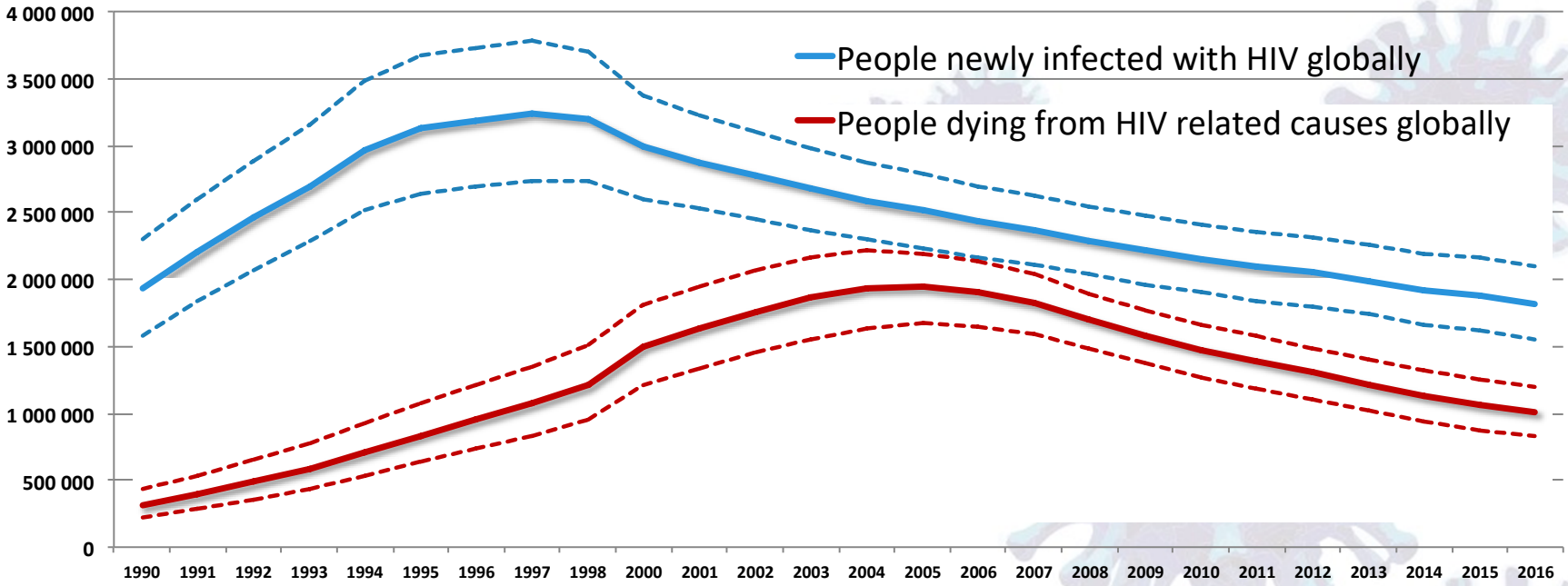
- Antiretroviral therapy
  - Guidelines 2017
  - New drugs
  - New strategies

The HIV Epidemic: The world

Current situation of the HIV epidemic

Decrease in the incidence and mortality of HIV infection over time

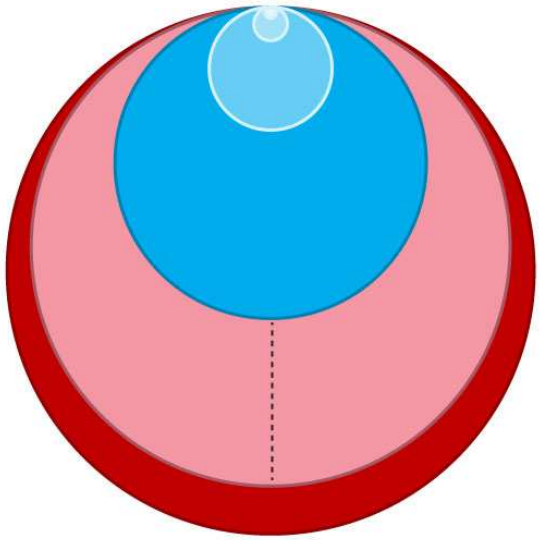


UNAIDS/WHO estimations. www.who.int

The HIV Epidemic: The world

Current situation of the HIV epidemic

Number of people on antiretroviral treatment



2000 – 685 000
2005 – 2.1 million
2010 – 7.7 million
2016 – 19.5 million
2020 – ≈ 30 million
2030 – ≈ 33 million

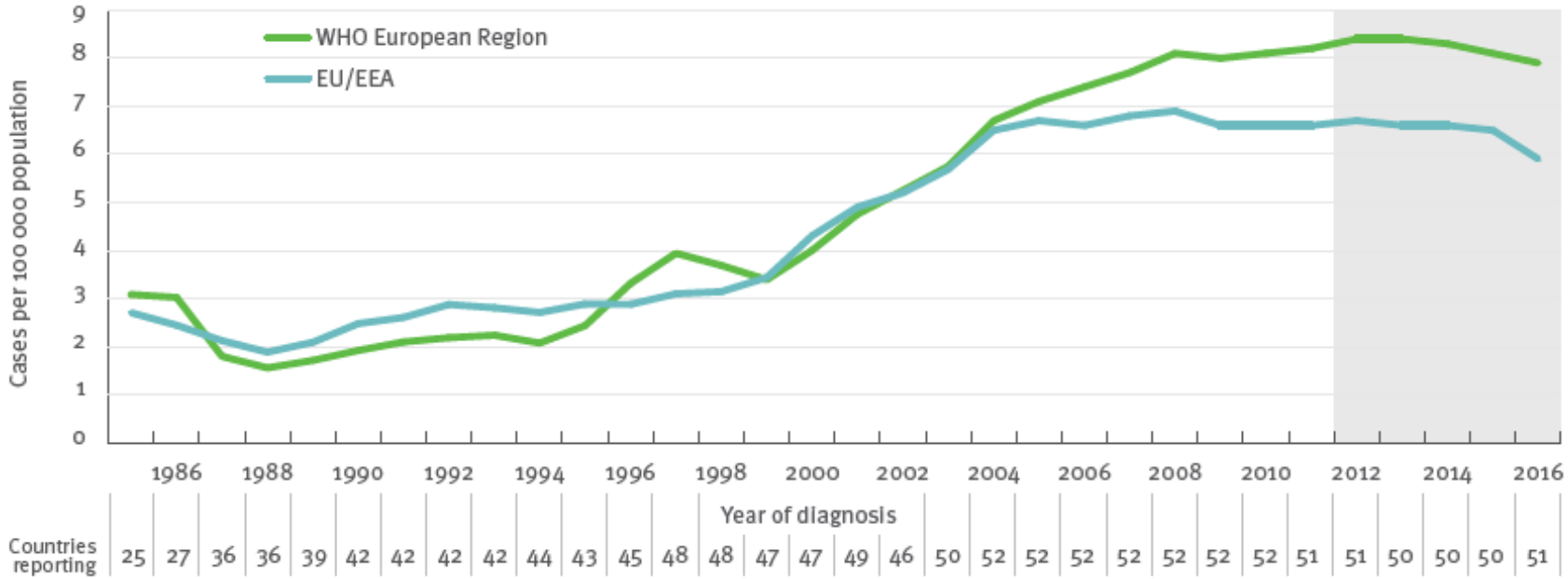
Future Objectives

UNAIDS/WHO estimations. www.who.int

The HIV Epidemic: Europe

Current situation of the HIV epidemic

Rate of new HIV diagnoses per 100,000 population in Europe

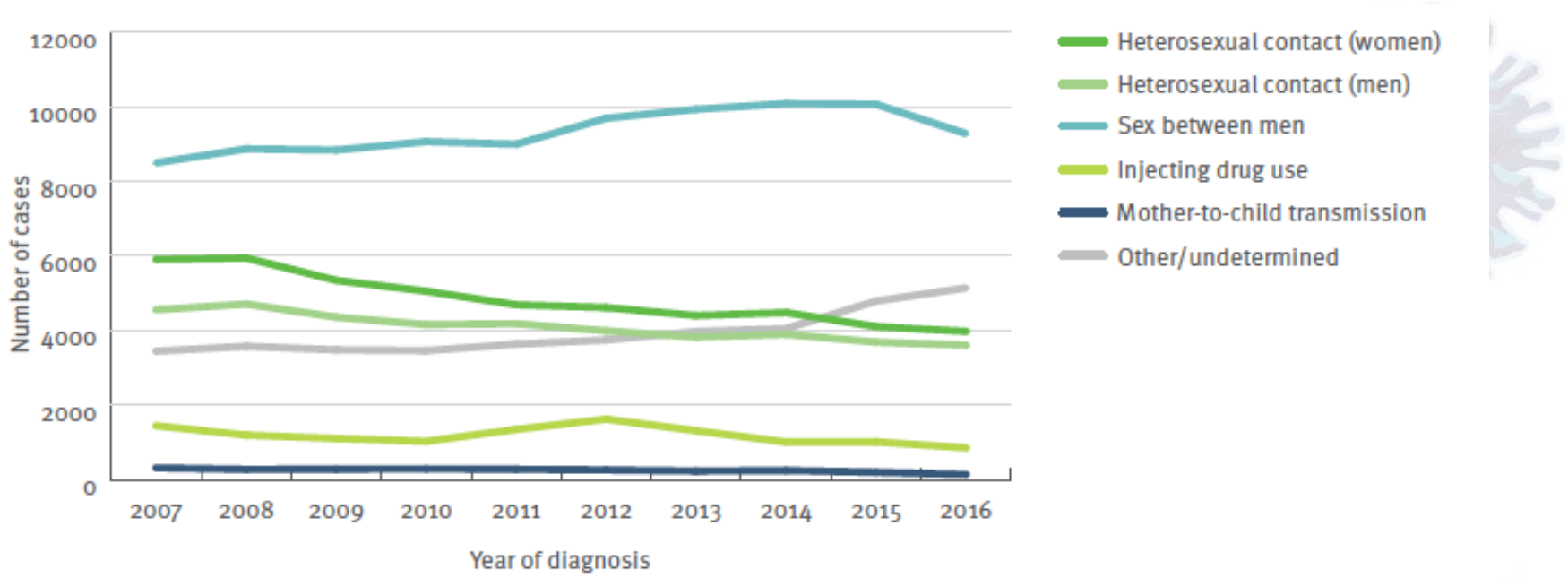


European CDC. HIV/AIDS surveillance in Europe 2017 – 2016 data. Stockolm: ECDC; 2017.

The HIV Epidemic: Europe

Current situation of the HIV epidemic

Number of HIV diagnoses per route of transmission, 2007-2016



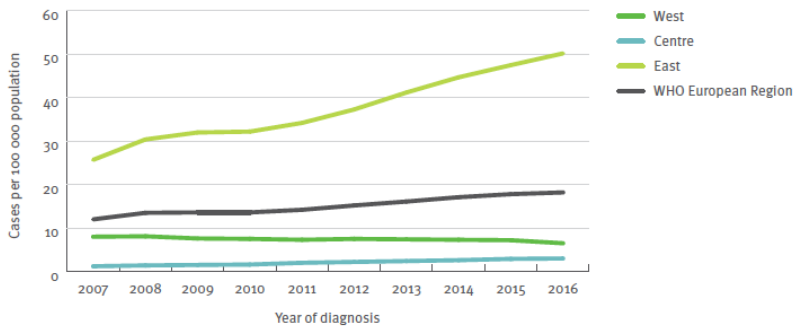
European CDC. HIV/AIDS surveillance in Europe 2017 – 2016 data. Stockolm: ECDC; 2017.

The HIV Epidemic: Europe

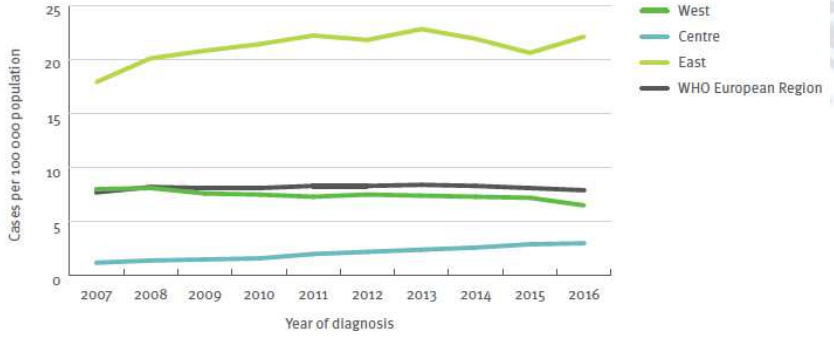
Current situation of the HIV epidemic

Rate of new HIV diagnoses including Russia (A) and excluding Russia (B) 2007-16

A



B



European CDC. HIV/AIDS surveillance in Europe 2017 – 2016 data. Stockolm: ECDC; 2017.

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Coinfections: Tuberculosis

One month of rifapentine/isoniazid to prevent TB in People with HIV

Brief-TB/A5279 Randomized Clinical Trial: Study Regimens

Weeks	Control Arm 9H	Experimental Arm 1HP
1 – 4	➢ Isoniazid daily (300 mg)*	➢ Rifapentine 450 mg (<45 kg) or ➢ Rifapentine 600 mg (≥45 kg) plus INH daily (300 mg)*
5 – 36	➢ Isoniazid daily (300 mg)*	No treatment
37 to end of follow-up	No treatment	No treatment

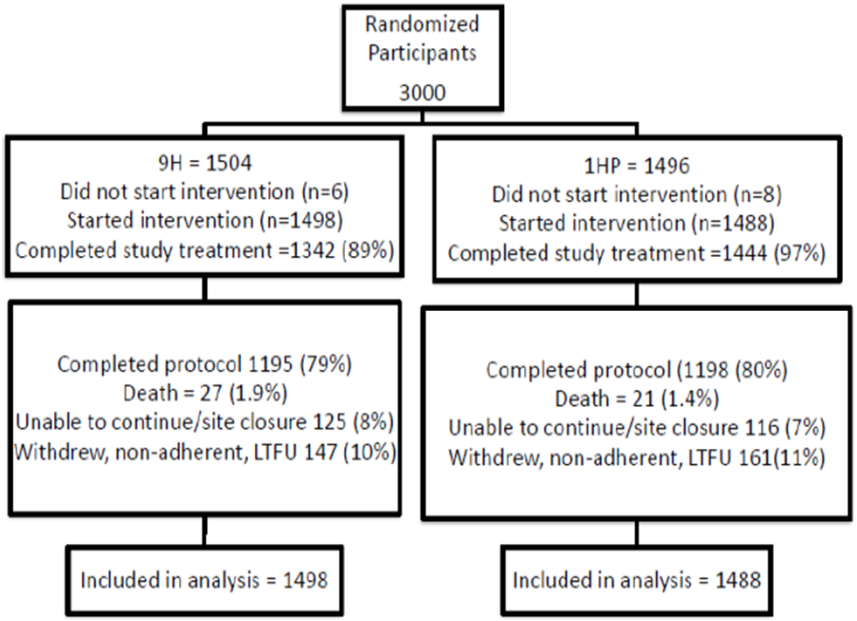
3 years of follow up after last participant enrolled

Swindells S, et al. CROI; Boston, MA; March 4-7, 2018. *Abstract 37LB*

Coinfections: Tuberculosis

One month of rifapentine/isoniazid to prevent TB in People with HIV

Brief-TB/A5279 Randomized Clinical Trial: Consort Diagram



Swindells S, et al. CROI; Boston, MA; March 4-7, 2018. *Abstract 37LB*

Coinfections: Tuberculosis

One month of rifapentine/isoniazid to prevent TB in People with HIV

Brief-TB/A5279 Randomized Clinical Trial: Main Results

	9H (N=1504)	1HP (N=1496)
Age (median, IQR) years	35 (28,43)	35 (28,43)
Male gender	46%	46%
Black, non-Hispanic race	66%	67%
CD4 (IQR) cells/mm3	469 (341, 633)	473 (349, 636)
ART at entry	50%	49%
Events (TB/Death)	33 (24/9)	32 (29/3)
Incidence x 100 Patients-Year*	0.67	0.65
Any Adverse Event	8.97%	7.42%
Any Hematological/Liver /Neurological	1.2%/2.8%/2.0%	2.4%/1.9%/0.1%

*IRR Difference (95% Confidence Interval): 0.023 (-0.35,0.35)

Swindells S, et al. CROI; Boston, MA; March 4-7, 2018. *Abstract 37LB*

Coinfections: Tuberculosis

One month of rifapentine/isoniazid to prevent TB in People with HIV

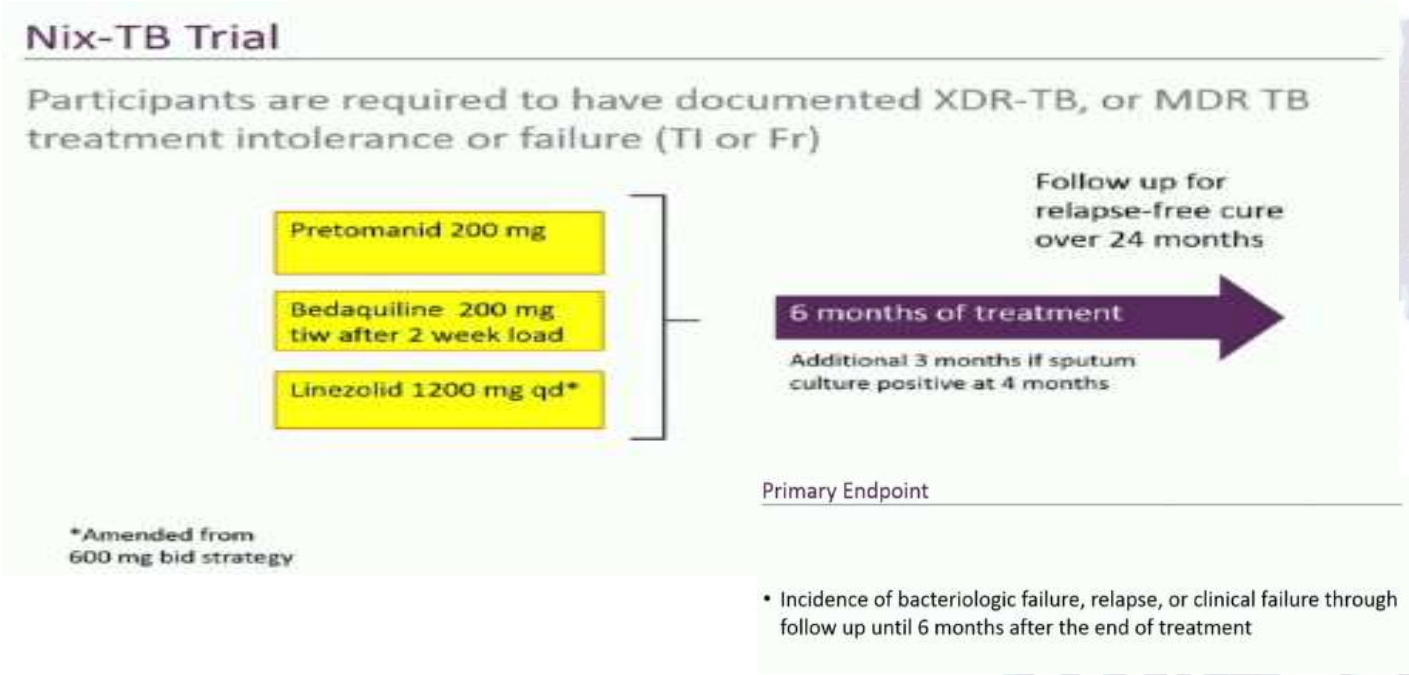
Brief-TB/A5279 Randomized Clinical Trial: Conclusions

- 1HP is non-inferior to 9H for preventing TB, TB death or death from unknown cause in adults and adolescents with HIV infection
- Rates of TB were higher in those with +TST/IGRA or CD4 ≤250
- Rates of endpoints were higher in 1HP recipients with CD4 ≤250 vs 9H
- Safety was good and similar in both arms, with more hematologic toxicity with 1HP and more liver and neuro- toxicity with 9H
- Completion of treatment was excellent in both arms but better with 1HP
- 1HP provides a highly-effective, ultra-short course regimen for the prevention of TB in people with HIV
- 1HP could contribute to improvements in global control of TB and should be studied in other high-risk groups

Swindells S, et al. CROI; Boston, MA; March 4-7, 2018. *Abstract 37LB*

Pretomanid, bedaquiline and linezolid to treat XDR-TB

The NIX-TB trial: Design



Conradie F, et al. CROI; Seattle, Washington; February 13-17, 2017. *Abstract LB80*

Pretomanid, bedaquiline and linezolid to treat XDR-TB

The NIX-TB trial: Participant demographics n=72

Age (Mean)	34.7 years	
Gender	M 39 F 33	54% 46%
Race	Black 56 White 1 Mixed 15	78% 1% 21%
HIV infected	37	51%
Types of TB	XDR 47 MDR TI 8 MDR TF 17	65% 11% 24%
Chest X-ray Cavities	None 9 Unilateral 36 Bilateral 26 Missing 1	13% 50% 36% 1%

Conradie F, et al. CROI; Seattle, Washington; February 13-17, 2017. *Abstract LB80*

Pretomanid, bedaquiline and linezolid to treat XDR-TB

The NIX-TB trial: Main results

Time to Culture Conversion

- All surviving patients were culture negative at 4 months.
- 26 (74%) negative at 8 weeks as of December 2016.
- 4 participants died within the first 8 weeks of therapy

Treatment-Emergent Adverse Events (TEAE)

- The expected linezolid toxicities of peripheral neuropathy (PN) and myelosuppression (MSPN) were common but manageable.
- 49 patients (71%) of participants had at least one linezolid dose interruption
- 14 (22%) due to MSPN
- 20 (28%) due to PN
- There were no cases of optic neuritis

Conradie F, et al. CROI; Seattle, Washington; February 13-17, 2017. *Abstract LB80*

Pretomanid, bedaquiline and linezolid to treat XDR-TB

The NIX-TB trial: Conclusions

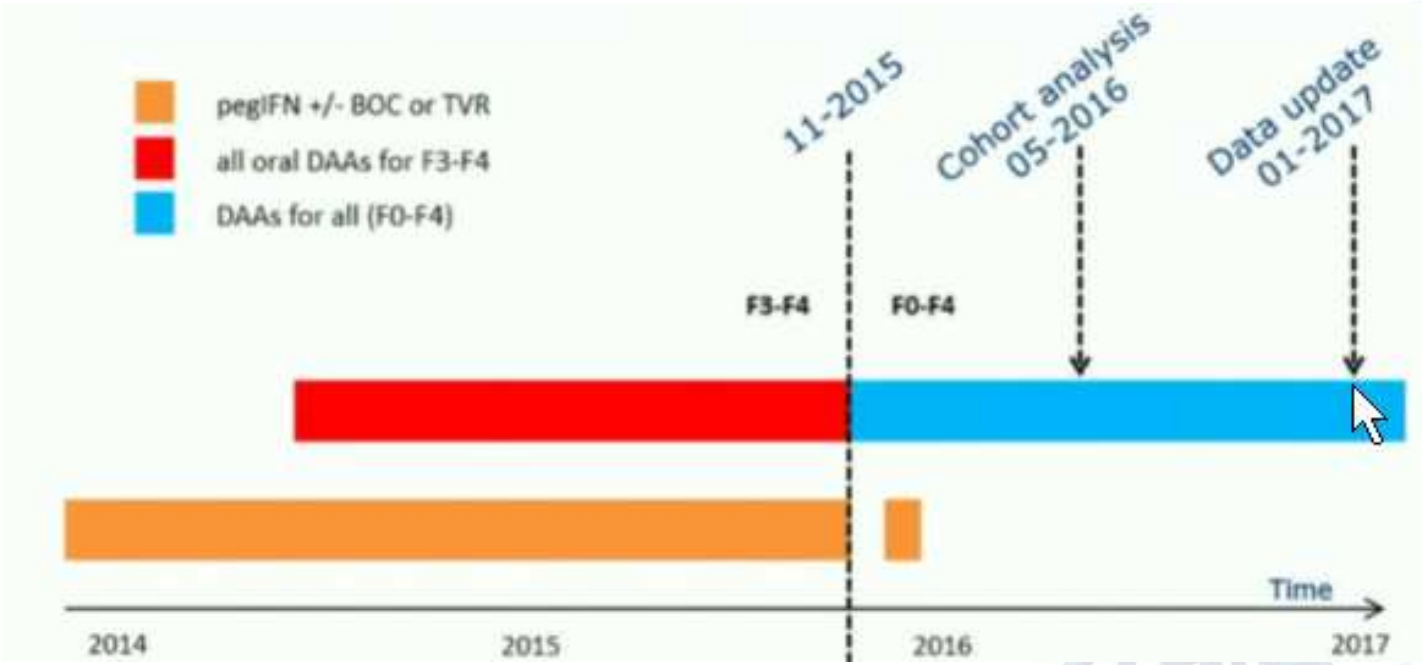
Conclusion

- Current results of this greatly simplified and shortened all-oral regimen for drug resistant TB are encouraging in terms of both efficacy and safety
- Mortality is less than 6%
- There has been only one XDR TB relapse
- No participant has had to have extended treatment

Conradie F, et al. CROI; Seattle, Washington; February 13-17, 2017. *Abstract LB80*

Substantial decline in acute HCV infections among Dutch HIV+MSM after DAA roll out

DAA treatment for HCV in the Netherlands



Boerekamps A et al. Clin Infect Dis. 2017 Nov 23.

Coinfections: Hepatitis C

Substantial decline in acute HCV infections among Dutch HIV+MSM after DAA roll out

2014

- Acute hepatitis N= 93
  - Geno 1 = 75 (81%)
  - Geno 4 = 18 (19%)
- Patient/years follow-up: 8,290
- Incidence: 11.2/1000 patients/year (CI 95% 9-14)
- 1.1% anual

Boerekamps A et al. Clin Infect Dis. 2017 Nov 23.

RR 0,49
IC 95% 0,34-0,69

2016

- Acute hepatitis N= 49
  - Geno 1 = 34 (69%)
  - Geno 4 = 15 (31%)
- Patient/years follow-up: 8,961
- Incidence 5.5/1000 patients/year (CI 95% 4-7)
- 0.55% anual

Coinfections: Hepatitis C

Substantial decline in acute HCV infections among Dutch HIV+MSM after DAA roll out

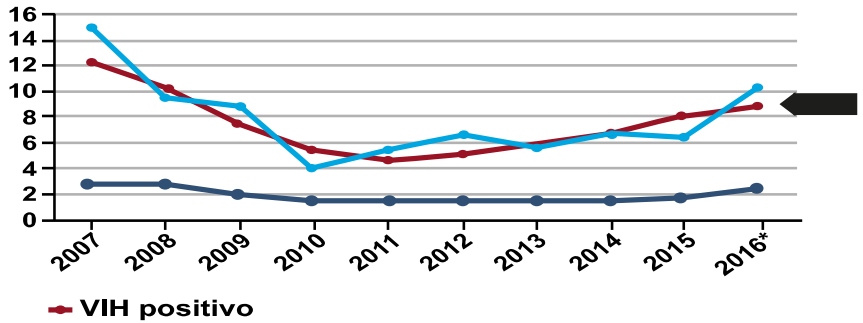
The decline is not explained by changes in sexual behaviours

Syphilis among MSM in STI clinics in The Netherlands:

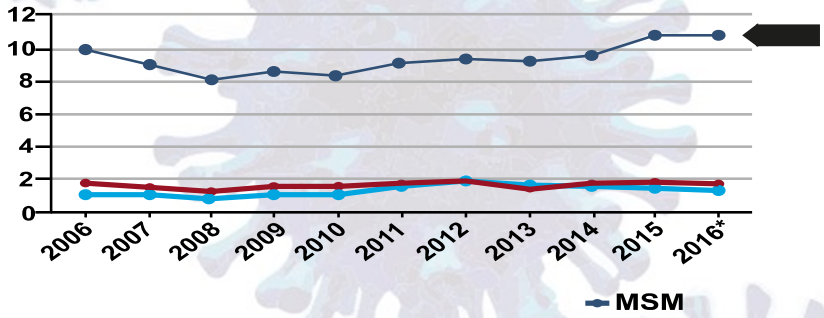
- First semester 2015: 446 new diagnoses
- First semester 2016: 629 new diagnoses

41% increase

Syphilis in HIV+MSM



LGV in MSM



Boerekamps A et al. Clin Infect Dis. 2017 Nov 23.

http://www.rivm.nl Thermometer sexuele gezondheid nov 2016

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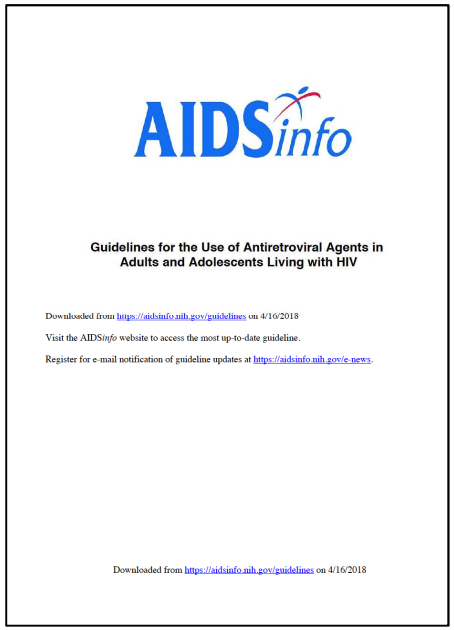
Guidelines 2017

HIV Guidelines.

When to Start.

All HIV-infected patients, irrespective of CD4 count


AIDSinfo

Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents Living with HIV

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Clinical Review & Education

Special Communication

Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults
2016 Recommendations of the International Antiviral Society-USA Panel

Huldrych F. Günthard, MD; Michael S. Saag, MD; Constance A. Benson, MD; Carlos del Rio, MD; Joseph J. Eron, MD; Joel E. Gallant, MD, MPH; Jennifer F. Hoy, MBBS, FRACP; Michael J. Mugavero, MD, MHSc; Paul E. Sax, MD; Melanie A. Thompson, MD; Rajesh T. Gandhi, MD; Raphael J. Landovitz, MD; Davey M. Smith, MD; Donna M. Jacobsen, BS; Paul A. Volberding, MD

IMPORTANCE Now data and therapeutic options warrant updated recommendations for the use of antiretroviral drugs (ARVs) to treat or to prevent HIV infection in adults.

OBJECTIVE To provide updated recommendations for the use of antiretroviral therapy in adults (aged ≥18 years) with established HIV infection, including when to start treatment, initial regimens, and changing regimens, along with recommendations for using ARVs for preventing HIV among those at risk, including preexposure and postexposure prophylaxis.

EVIDENCE REVIEW A panel of experts in HIV research and patient care convened by the International Antiviral Society–USA reviewed data published in peer-reviewed journals, presented by regulatory agencies, or presented as conference abstracts at peer-reviewed scientific conferences since the 2014 report. For new data or evidence that would change previous recommendations or their ratings. Comprehensive literature searches were conducted in the PubMed and EMBASE databases through April 2016. Recommendations were by consensus, and each recommendation was rated by strength and quality of the evidence.

FINDINGS Newer data support the widely accepted recommendation that antiretroviral therapy should be started in all individuals with HIV infection with detectable viremia regardless of CD4 cell count. Recommended optimal initial regimens for most patients are 2 nucleoside reverse transcriptase inhibitors (NRTIs) plus an integrase strand transfer inhibitor (InSTI). Other effective regimens include nonnucleoside reverse transcriptase inhibitors or boosted protease inhibitors with 2 NRTIs. Recommendations for special populations and in the settings of opportunistic infections and concomitant conditions are provided. Reasons for switching therapy include convenience, tolerability, simplification, anticipation of potential new drug interactions, pregnancy or plans for pregnancy, elimination of food restrictions, virologic failure, or drug toxicities. Laboratory assessments are recommended before treatment, and monitoring during treatment is recommended to assess response, adverse effects, and adherence. Approaches are recommended to improve linkage to and retention in care are provided. Daily tenofovir disoproxil fumarate/emtricitabine is recommended for use as preexposure prophylaxis to prevent HIV infection in persons at high risk. When indicated, postexposure prophylaxis should be started as soon as possible after exposure.

CONCLUSIONS AND RELEVANCE Antiretroviral agents remain the cornerstone of HIV treatment and prevention. All HIV-infected individuals with detectable plasma virus should receive treatment with recommended initial regimens consisting of an InSTI plus 2 NRTIs. Preexposure prophylaxis should be considered as part of an HIV prevention strategy for at-risk individuals. When used effectively, currently available ARVs can sustain HIV suppression and can prevent new HIV infection. With these treatment regimens, survival rates among HIV-infected adults who are retained in care can approach those of uninfected adults.

Editorial page 151
Supplemental content at jama.com
CME Quiz at jamanetworkcme.com

Author Affiliations: Author affiliations are listed at the end of this article.

Corresponding Author: Huldrych F. Günthard, MD, Division of Infectious Diseases and Hospital Epidemiology, University Hospital Zurich, Rämistrasse 100, 8091 Zürich, Switzerland (huldrych.guenthard@usz.ch).

JAMA. 2016;316(2):191-210. doi:10.1001/jama.2016.8900

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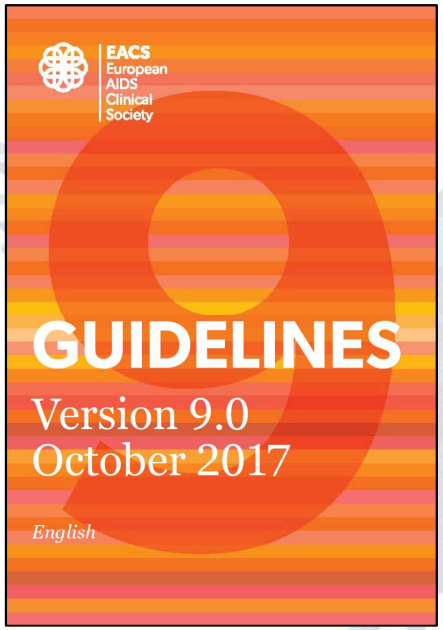

EACS European AIDS Clinical Society

GUIDELINES

Version 9.0
October 2017

English


Documento de consenso de Gesida/Plan Nacional sobre el Sida respecto al tratamiento antirretroviral en adultos infectados por el virus de la inmunodeficiencia humana
(Actualización enero 2018)

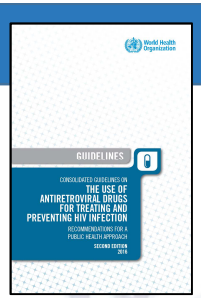
Panel de expertos de Gesida y Plan Nacional sobre el Sida

GeSIDA GRUPO DE ESTUDIO DEL SIDA-SEIMC

GOBIERNO DE ESPAÑA · MINISTERIO DE SANIDAD, SERVICIOS SOCIALES E IGUALDAD

i

WHO Clinical Guidelines 2016: Antiretroviral Therapy



When to Start ART

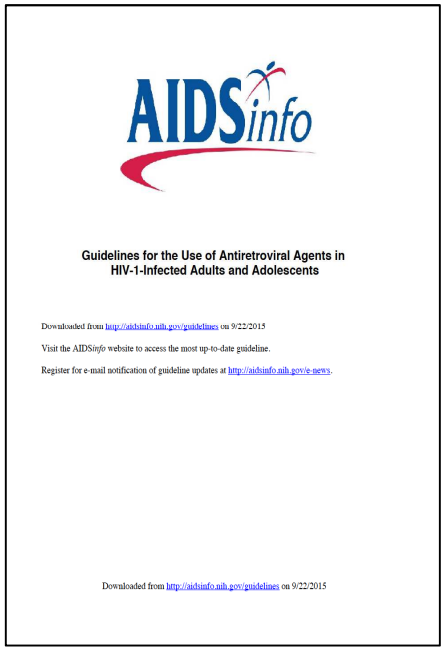
NEW 4.3.1 When to start ART in adults (>19 years old)	ART should be initiated in all adults living with HIV, regardless of WHO clinical stage and at any CD4 cell count (strong recommendation, moderate-quality evidence).
	As a priority, ART should be initiated in all adults with severe or advanced HIV clinical disease (WHO clinical stage 3 or 4) and adults with a CD4 count ≤350 cells/mm^3 (strong recommendation, moderate-quality evidence).
NEW 4.3.2 When to start ART in pregnant and breastfeeding women	ART should be initiated in all pregnant and breastfeeding women living with HIV, regardless of WHO clinical stage and at any CD4 cell count and continued lifelong (strong recommendation, moderate-quality evidence).

WHO. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection, June 2016

Guidelines 2017

HIV Guidelines.

What to Start.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Clinical Review & Education

Special Communication

Antiretroviral Treatment of Adult HIV Infection
2014 Recommendations
of the International Antiviral Society–USA Panel

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Supplemental content at jama.com

JAMA. 2014;312(4):410-425. doi:10.1001/jama.2014.8722

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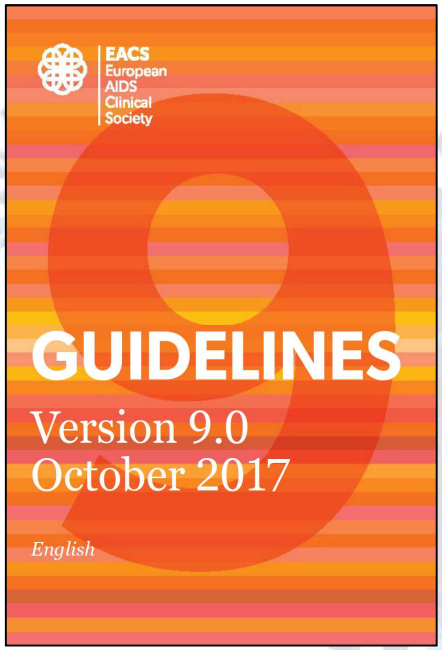


Documento de consenso de GeSIDA/Plan Nacional sobre el Sida respecto al tratamiento antirretroviral en adultos con infección por el virus de la inmunodeficiencia humana

(Actualización enero 2015)

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GeSIDA GRUPO DE ESTUDIO DEL SIDA-SEIMC

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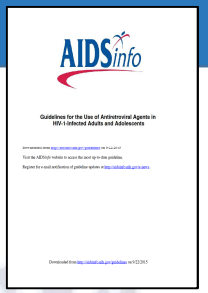
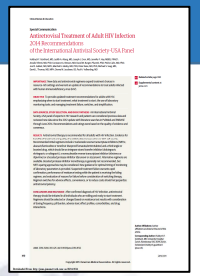


DHHS Guidelines October, 2017

What to Start: Recommended regimens

- The Panel on Antiretroviral Guidelines for Adults and Adolescents (the Panel) classifies the following regimens as Recommended Initial Regimens for Most People with HIV (in alphabetical order):
  - Dolutegravir/abacavir/lamivudine[a]—**only** for patients who are HLA-B*5701-negative **(AI)**
  - Dolutegravir plus tenofovir/emtricitabine[a,b] **(AI)**
  - Elvitegravir/cobicistat/tenofovir/emtricitabine[b] **(AI)**
  - Raltegravir plus tenofovir/emtricitabine[a,b] (**AI** for tenofovir disoproxil fumarate, **AII** for tenofovir alafenamide)[a,b]

EACS Guidelines. V 9. October 2017.



IAS-USA Panel Guidelines 2016

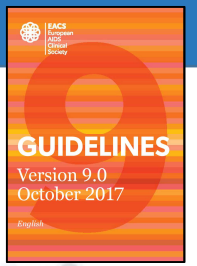
What to Start: Recommended regimens

Regimen	Rating
Dolutegravir/abacavir/lamivudine	AIa
Dolutegravir plus tenofovir alafenamide/emtricitabine[b]	AIa
Elvitegravir/cobicistat/tenofovir alafenamide/emtricitabine[b]	AIa
Raltegravir plus tenofovir alafenamide/emtricitabine[b]	AIII

GeSIDA Guidelines 2018

What to Start: Preferred regimens

3er Fármaco	Pauta†	Comentarios‡
Preferentes. *Pautas aplicables a la mayoría de los pacientes y que en ensayos clínicos aleatorizados han mostrado una eficacia superior frente a otras o mostrando no-inferioridad presentan ventajas adicionales en tolerancia, toxicidad o un bajo riesgo de interacciones farmacológicas.*		
INI	DTG/ABC/3TC	- ABC está contraindicado en pacientes con HLA-B*5701 positivo
	DTG+FTC/TAF	
	RAL+FTC/TAF	- RAL puede administrarse indistintamente como 1 comprimido de 400 mg cada 12 horas, o 2 comprimidos de 600 mg (nueva formulación) cada 24 horas*.

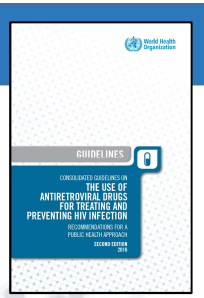


EACS Guidelines 2017

What to Start: Recommended regimens

Pauta	Dosis
2 ITIAN + INI	
ABC/3TC/DTG[i, ii]	ABC/3TC/DTG 600/300/50 mg, 1 comprimido qd
TAF/FTC[iii] o TDF/FTC[iii] + DTG	TAF/FTC 25/200 mg, 1 comprimido qd o TDF/FTC 300/200mg, 1 comprimido qd + DTG 50 mg, 1 comprimido qd
TAF/FTC/EVC/c[iii] TDF/FTC/EVG/c[iii, iv]	TAF/FTC/EVG/c 10/200/150/150 mg, 1 comprimido qd o TDF/FTC/EVG/c 300/200/150/150 mg, 1 comprimido qd
TAF/FTC[iii] o TDF/FTC[iii] + RAL	TAF/FTC 25/200 mg, 1 comprimido qd o TDF/FTC 300/200mg, 1 comprimido qd + RAL 400 mg, 1 comprimido bid
2 ITIAN + ITINN	
TAF/FTC/RPV[iii] TDF/FTC/RPV[iii]	TAF/FTC/RPV 25/200/25 mg, 1 comprimido qd TDF/FTC/RPV 300/200/25 mg, 1 comprimido qd
2 ITIAN + IP/r	
TAF/FTC[iii] o TDF/FTC[iii] + DRV/c [v] o + DRV/r [v]	TAF/FTC 10/200 mg, 1 comprimido qd o TDF/FTC 300/200mg, 1 comprimido qd + DRV/c 800/150 mg, 1 comprimido qd o + DRV 800 mg, 1 comprimido qd + RTV 100 mg, 1 comprimido qd

EACS Guidelines. V 9. October 2017.



WHO Clinical Guidelines 2016: Antiretroviral Therapy

What to Start: First line ART

4.4.1 First-line ART for adults	First-line ART for adults[1] should consist of two nucleoside reverse-transcriptase inhibitors (NRTIs) plus a non-nucleoside reverse-transcriptase inhibitor (NNRTI) or an integrase inhibitor (INSTI): • TDF + 3TC (or FTC) + EFV as a fixed-dose combination is recommended as the preferred option to initiate ART (strong recommendation, moderate-quality evidence). • If TDF + 3TC (or FTC) + EFV is contraindicated or not available, one of the following alternative options is recommended: ° AZT + 3TC + EFV ° AZT + 3TC + NVP ° TDF + 3TC (or FTC) + NVP (strong recommendation, moderate-quality evidence).
	NEW TDF + 3TC (or FTC) + DTG or TDF + 3TC (or FTC) + EFV 400 mg/day may be used as alternative options to initiate ART (conditional recommendation, moderate-quality evidence).
NEW 4.4.2 Fixed-dose combinations	Fixed-dose combinations and once-daily regimens are preferred for antiretroviral therapy (strong recommendation, moderate-quality evidence).

New Drugs

Antiretrovirals available in 2018 in Europe

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

NNRTIs
- Delavirdine
- Efavirenz
- Etravirine
- Nevirapine
- Nevirapine XR
- Rilpivirine

PIs
- Atazanavir
- Darunavir
- Fosamprenavir
- Indinavir
- Lopinavir
- Nelfinavir
- Ritonavir
- Saquinavir
- Tipranavir

INIs
- Raltegravir
- Dolutegravir
- Elvitegravir

Fusion inhibitors
- Enfuvirtide

Entry Inhibitors
- Maraviroc

PK Boosters
- Ritonavir
- Cobicistat

STR
- Atripla
- Eviplera
- Stribild
- Triumeq
- Genvoya

NRTI, nucleoside reverse transcriptase inhibitor; NNRTI, non-nucleoside reverse transcriptase inhibitor; PI, protease inhibitor; PK, pharmacokinetic

Adapted from http://www.aidsmeds.com/list.shtml and each product's eMC SPC available at http://www.medicines.org.uk/emc/search

New Drugs

Antiretrovirals available in 2018

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

NNRTIs
- Delavirdine
- Efavirenz
- Etravirine
- Nevirapine
- Nevirapine XR
- Rilpivirine
- Doravirine

PIs
- Atazanavir
- Darunavir
- Fosamprenavir
- Indinavir
- Lopinavir
- Nelfinavir
- Ritonavir
- Saquinavir
- Tipranavir

INIs
- Raltegravir
- Dolutegravir
- Elvitegravir
- Bictegravir

Fusion inhibitors
- Enfuvirtide

Entry Inhibitors
- Maraviroc
- Fostemsavir
- Ibalizumab
- Pro140
- UB-421

PK Boosters
- Ritonavir
- Cobicistat

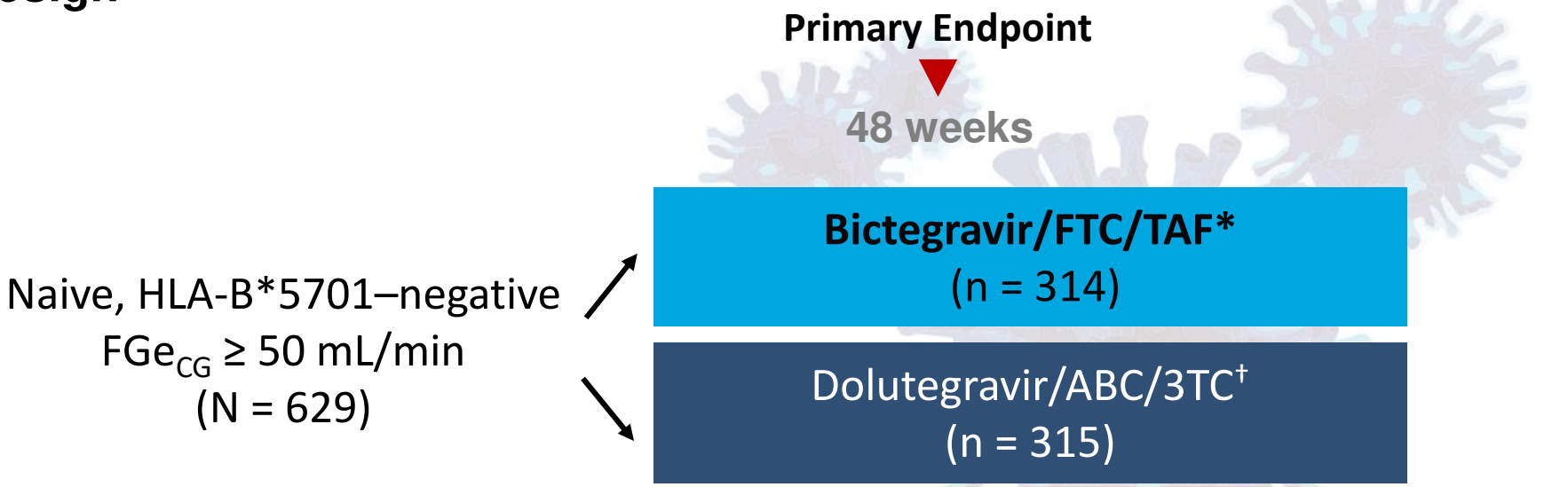
STR
- Atripla
- Eviplera
- Stribild
- Triumeq
- Genvoya

NRTI, nucleoside reverse transcriptase inhibitor; NNRTI, non-nucleoside reverse transcriptase inhibitor; PI, protease inhibitor; PK, pharmacokinetic

Adapted from http://www.aidsmeds.com/list.shtml and each product's eMC SPC available at http://www.medicines.org.uk/emc/search

Study 1489: Bictegravir + TAF/FTC vs Dolutegravir + ABC/3TC, both coformulated, in naive patients

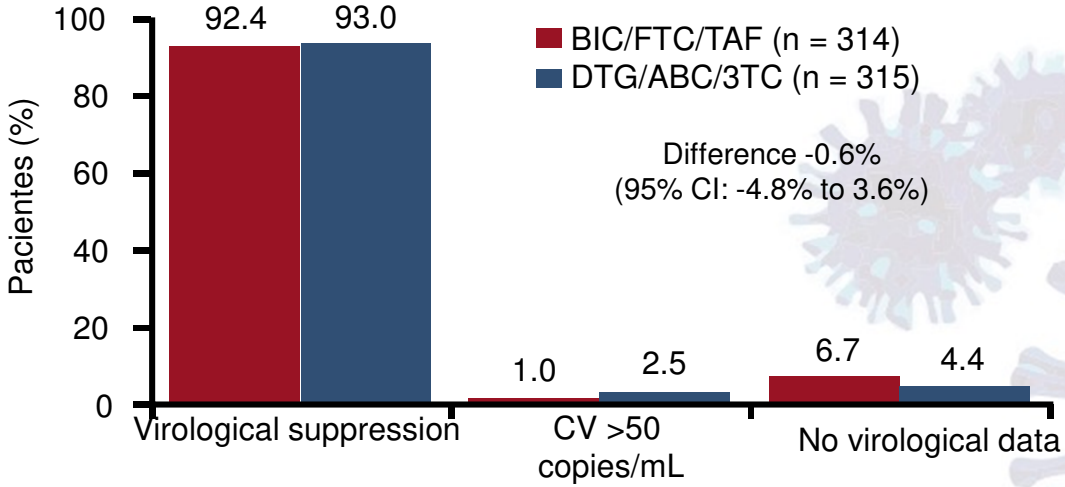
Design



Gallant J, et al. Lancet. 2017;390:2063-2072.

New Drugs: Bictegravir

Study 1490: Virological Efficacy (week 48)

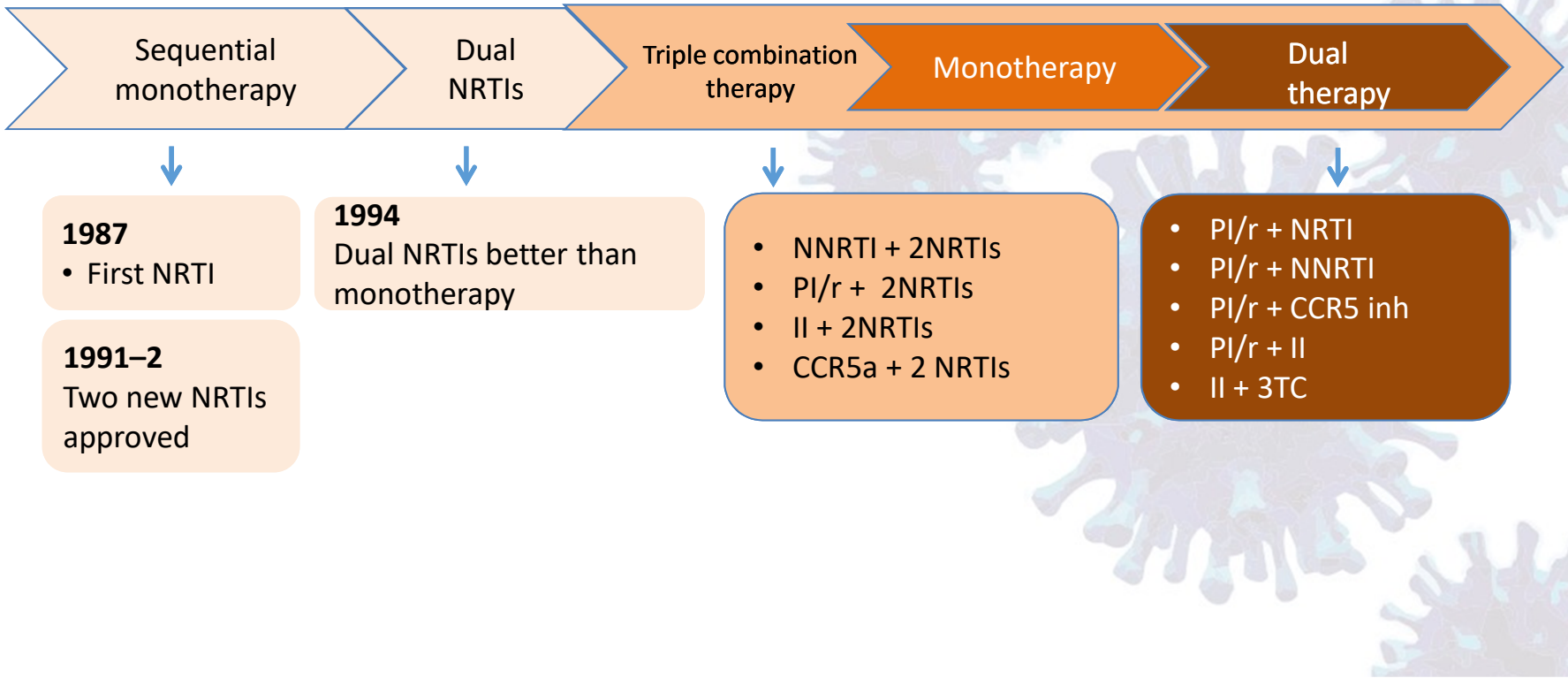


- No resistance mutations

Gallant J, et al. Lancet. 2017;390:2063-2072.

New Strategies: 2 Drug-Regimens

Number of drugs: ART Evolution



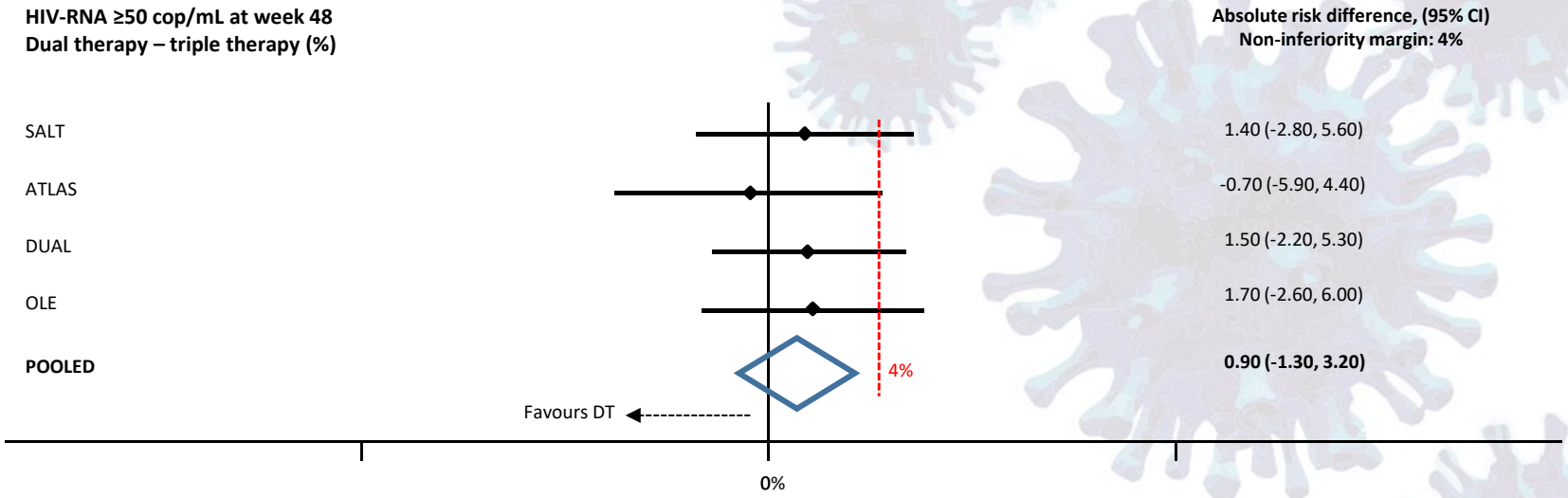
New Strategies: 2 Drug-Regimens

Combinations of bPI + 3TC.

Switch in suppressed patients

At 48w, 4% of patients on DT vs. 3.04% on TT had HIV-RNA ≥50 cop/mL

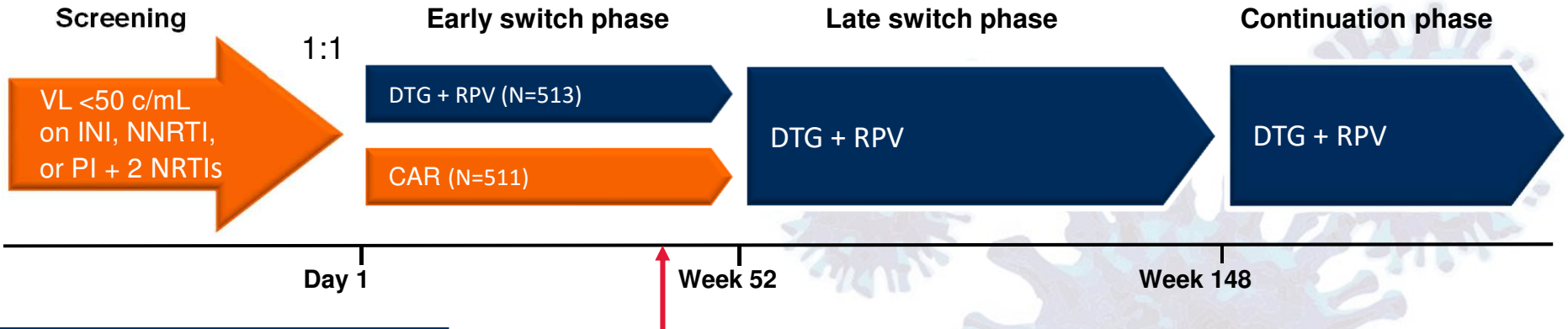
Difference 0.9% (95%CI, -1.3% to 3.2%)



Pérez-Molina JA et al. PS1-1. 16th European AIDS Conference. Milan 2017

New Strategies: 2 Drug-Regimens

SWORD-1 and SWORD-2 Phase III Study Design



Inclusion criteria
- On stable CAR ≥6 months before screening
- 1st or 2nd ART with no change in prior regimen due to VF
- Confirmed HIV-1 RNA <50 c/mL during the 12 months before screening
- HBV negative

Primary endpoint at 48 weeks: subjects with VL <50 c/mL (ITT-E snapshot)[a]

Countries

Argentina	Australia	Belgium
	Canada	
France	Germany	Italy
	Netherlands	
Russia	Spain	Taiwan
	United Kingdom	
United States		

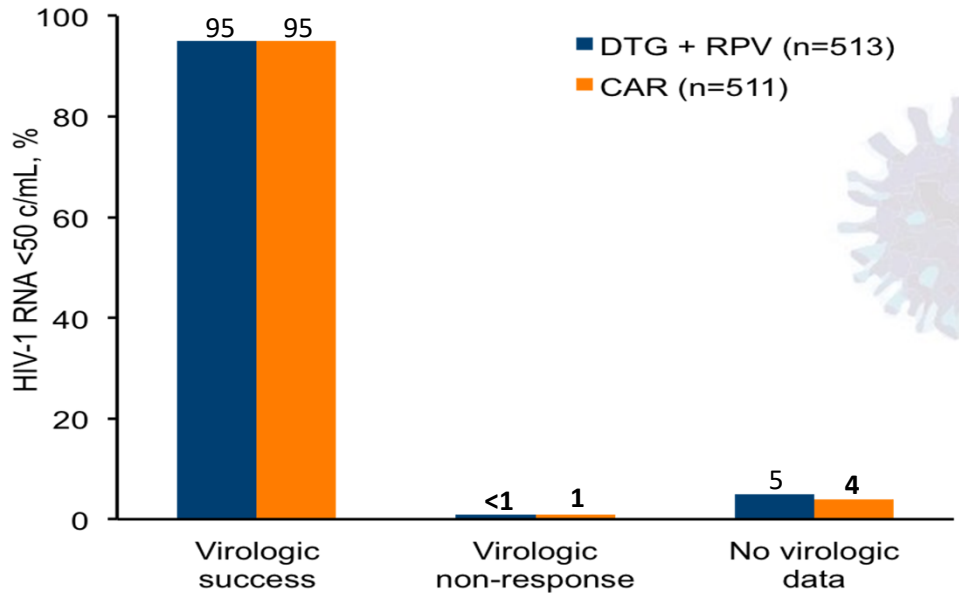
- [a]-8% non-inferiority margin for pooled data
- -10% non-inferiority margin for individual studies

Llibre et al. Lancet. 2018;391:839-849.

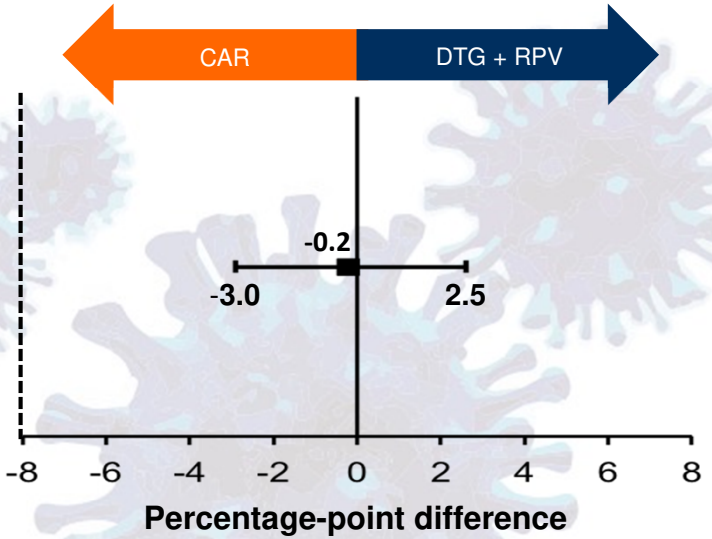
New Strategies: 2 Drug-Regimens

Snapshot Outcomes at Week 48 (Pooled)

Virologic outcomes



Adjusted treatment difference (95% CI)[a]



DTG + RPV is **non-inferior** to CAR with respect to snapshot in the ITT-E population (<50 c/mL) at Week 48

Llibre et al. Lancet. 2018;391:839-849.

New Strategies: 2 Drug-Regimens

ACTG A5353: 3TC + Dolutegravir
Primary Objective (snapshot at 24 weeks)

	Baseline viral load		
	> 100,000 cpm N=37	≤ 100,000 cpm N=83	Total N=120
Virological suppression HIV-1 RNA < 50 c/m **[95% CI]**	**33 (89%) [75%,97%]**	**75 (90%) [82%,96%]**	**108 (90%) [83%,95%]**
No suppression	**3 (8%)**	**2 (2%)**	**5 (4%)**
HIV-1 RNA ≥ 50 c/m	3	0	3
Discontinuation with CV > 50 c/m*	0	2	2
No virological data	**1 (3%)**	**6 (7%)**	**7 (6%)**
Discontinuation for other reasons#	1	5	6
In study but without data	0	1	1

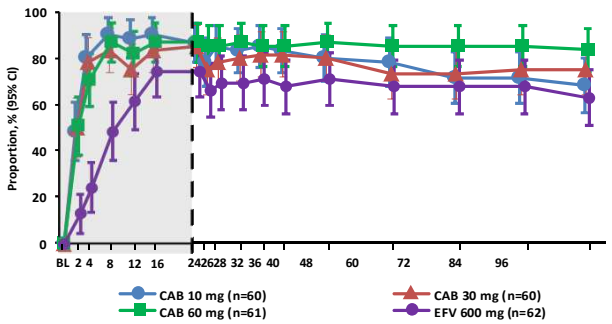
** Poor adherence; # Lost of follow-up, pregnancy.*

Taiwo BO, et al. Clin Infect Dis. 2017

New Strategies: Long acting regimens

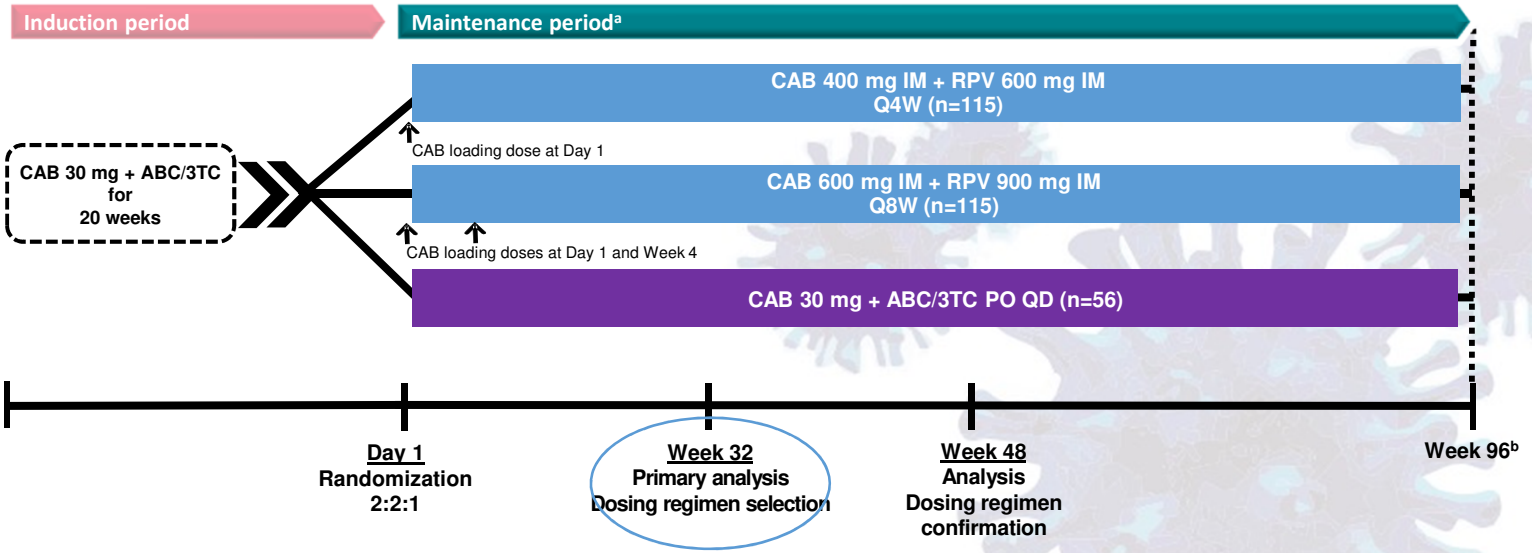
Long-acting antiretrovirals: Cabotegravir + rilpivirine

- **CAB** is an HIV-1 integrase inhibitor
  - Oral 30 mg tablet (t½, ~40 hours)
  - **LA nanosuspension 200 mg/mL (t½, ~20-40 days)**
- **RPV** is an HIV-1 NNRTI
  - Oral 25 mg tablet (t½, ~50 hours)
  - **LA nanosuspension 300 mg/mL (t½, ~30-90 days)**
- **Oral 2-drug CAB + RPV proof of efficacy through Week 96 in LATTE-1**



New Strategies: Long acting regimens

Latte-2: Study design



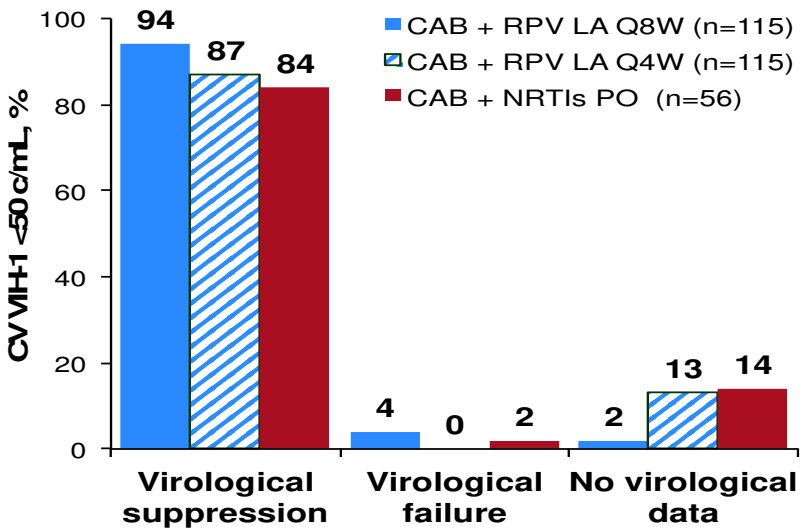
- ABC/3TC, abacavir/lamivudine; ALT, alanine aminotransferase; IM, intramuscular; PO, orally; Q4W, every 4 weeks; Q8W, every 8 weeks; QD, once daily; ULN, upper limit of normal. [a]Subjects who withdrew after at least 1 IM dose entered the long-term follow-up period. [b]Subjects can elect to enter LA Extension Phase beyond Week 96.

Margolis DA. Lancet. 2017;390:1499-1510.

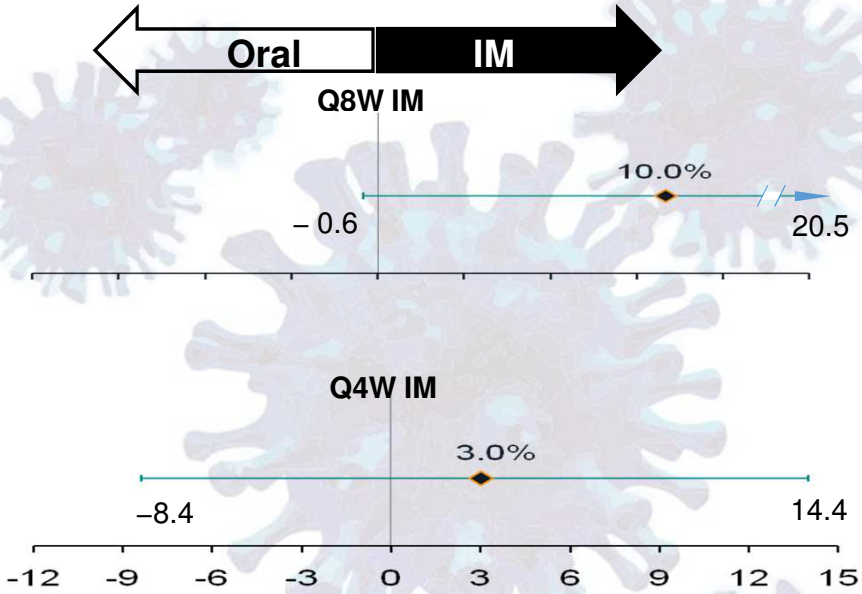
New Strategies: Long acting regimens

LATTE-2 : Efficacy at week 96 (ITT-ME Snapshot)

Virological Response



Differences in treatment (IC 95%)



Margolis DA. Lancet. 2017;390:1499-1510.

Conclusions

Year in Infectious Diseases 2017: HIV

- Control of the HIV-epidemic
  - —Improvement in the overall figures for HIV worldwide
  - —Still large differences in Eastern and Western Europe
- Coinfections
  - —New options for treatment of latent infections and XDR tuberculosis
  - —Treatment as prevention proved to be successful in the control of HCV spread
- Antiretroviral therapy
  - —Guidelines tend to coincide regarding when to start and what to start
  - —New drugs in the short-, mid-, and long-term
  - —New strategies are being designed to treat HIV