



STR vs non-STR

Pr. Jean-Jacques Parienti, Caen

PROGRAMME

 VIROTEAM

Du jeudi 31 janvier au vendredi 1^{er} février 2019
Marseille

Comité scientifique :
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Research Grant & Consultant:

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Importance de l'adhérence

Relation adhérence – succès

PROGRAMME



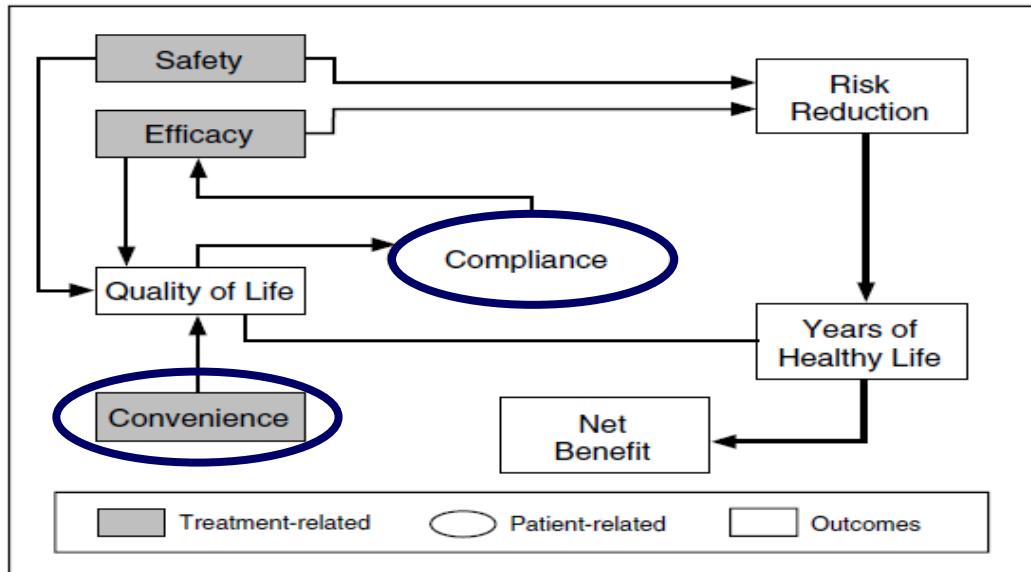
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STR vs non STR? Via Adherence – Rôle Central

ASSESSMENT OF QUALITY-OF-LIFE OUTCOMES

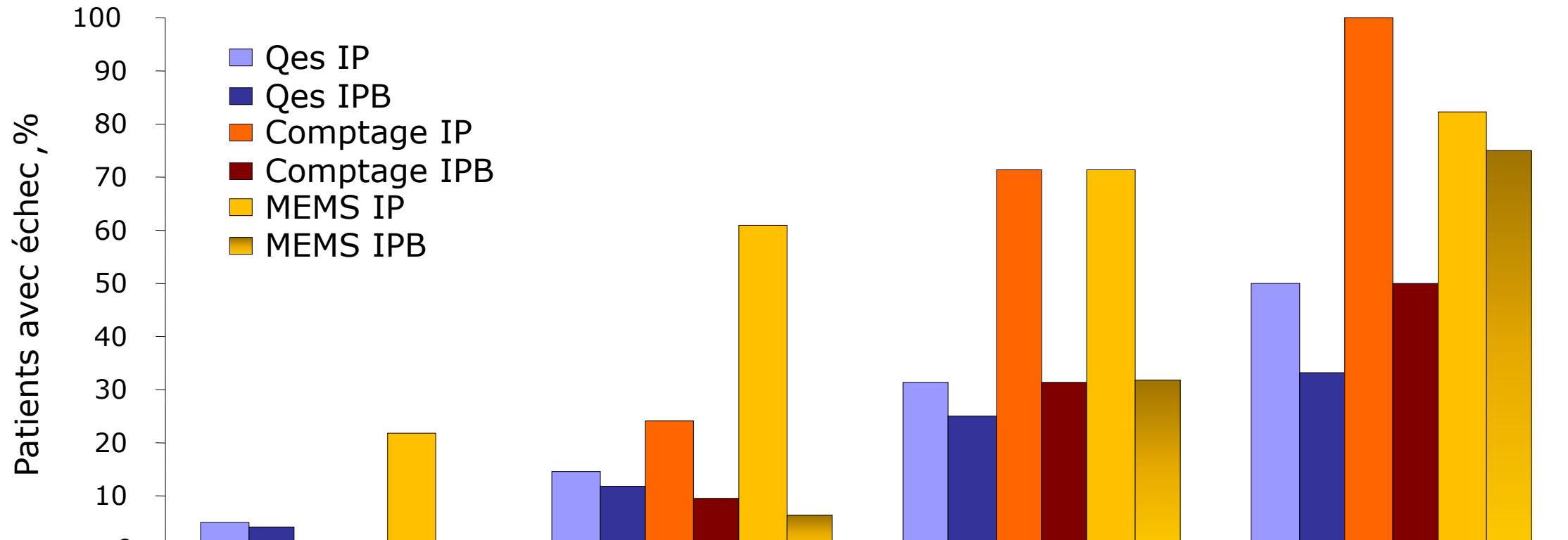


« Translating the various domains and components of health into a qualitative value that indicates the quality of life is a complex task »

Figure 3. The Role of Quality of Life in Determining the Net Benefit of Therapy for a Chronic Disease.

This hypothetical model shows the relations among treatment-related influences (safety, efficacy, and convenience), characteristics of patients (compliance), and measurable outcomes (quality of life, risk reduction, years of healthy life, and net benefit).

Adhérence et PI



	Qes (%)	76-95	55-75	<55
Compt.	>90%	80-90	70-79	<70
MEMS	>95%	80-95	70-79	<70

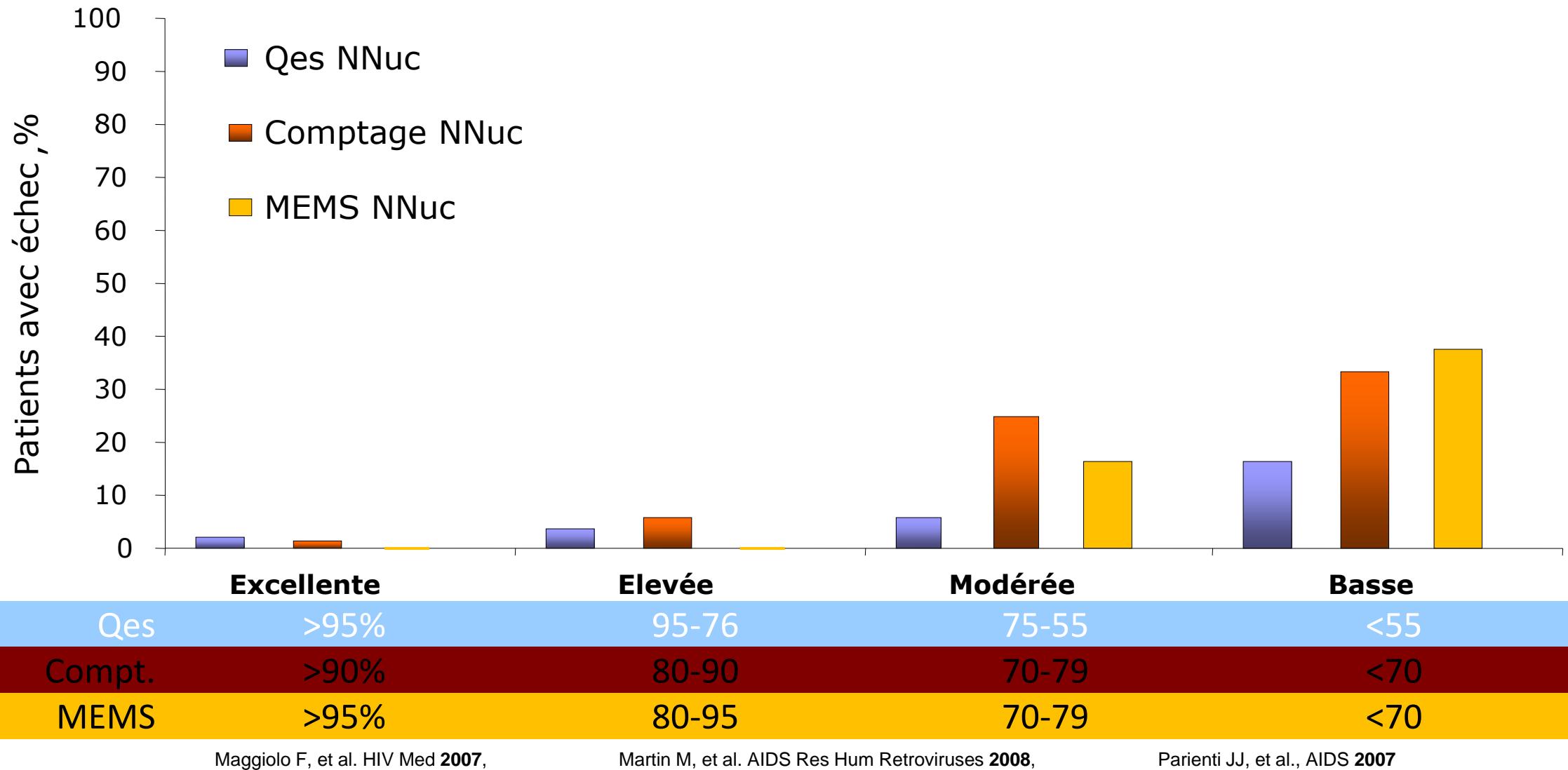
Maggioli et al. HIV Med 2007,

Martin et al. AIDS Res Hum Retroviruses 2008,

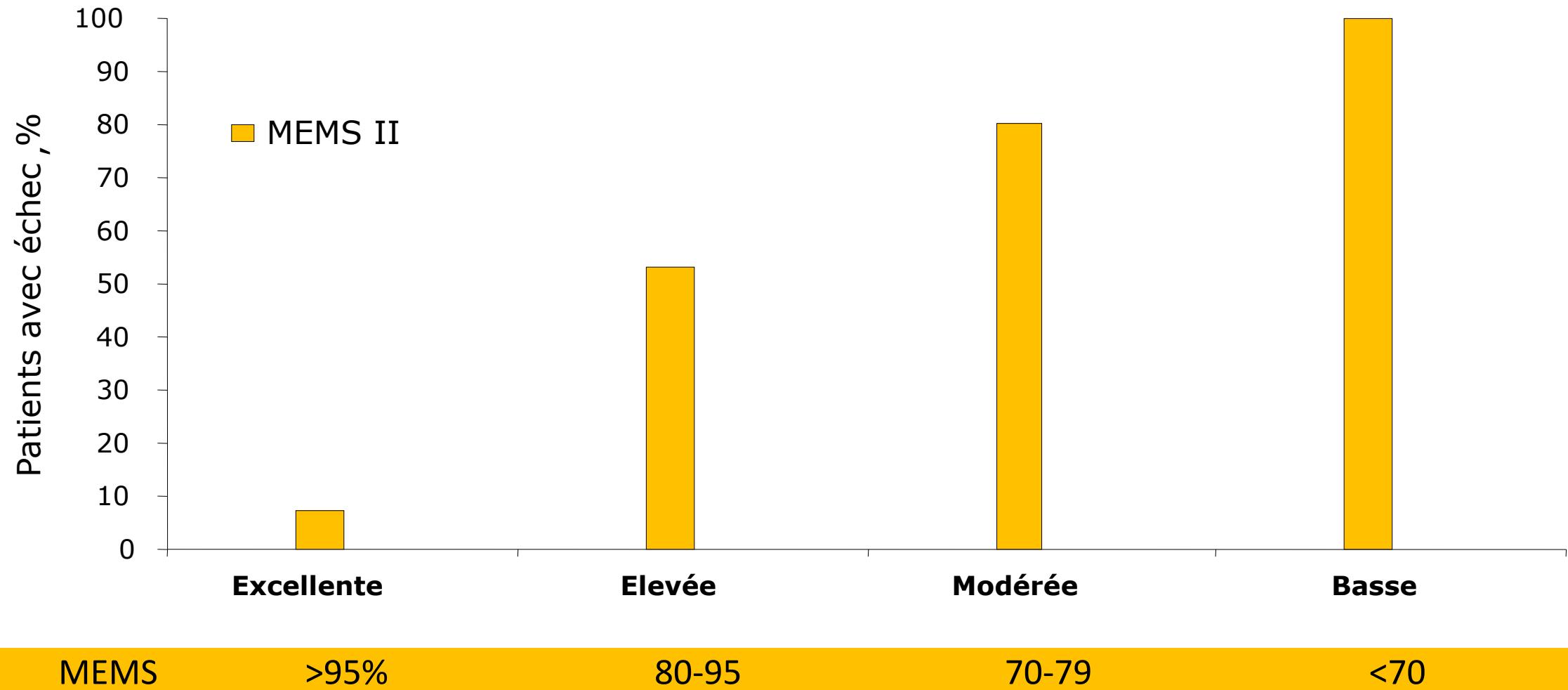
Paterson et al. Ann Intern Med 2001,

Parienti et al., CID 2010

Adhérence et NNRTIs



Adhérence et INSTI (1ère génération)



Relation adhérence – résistance

Adhérence différentielle

PROGRAMME

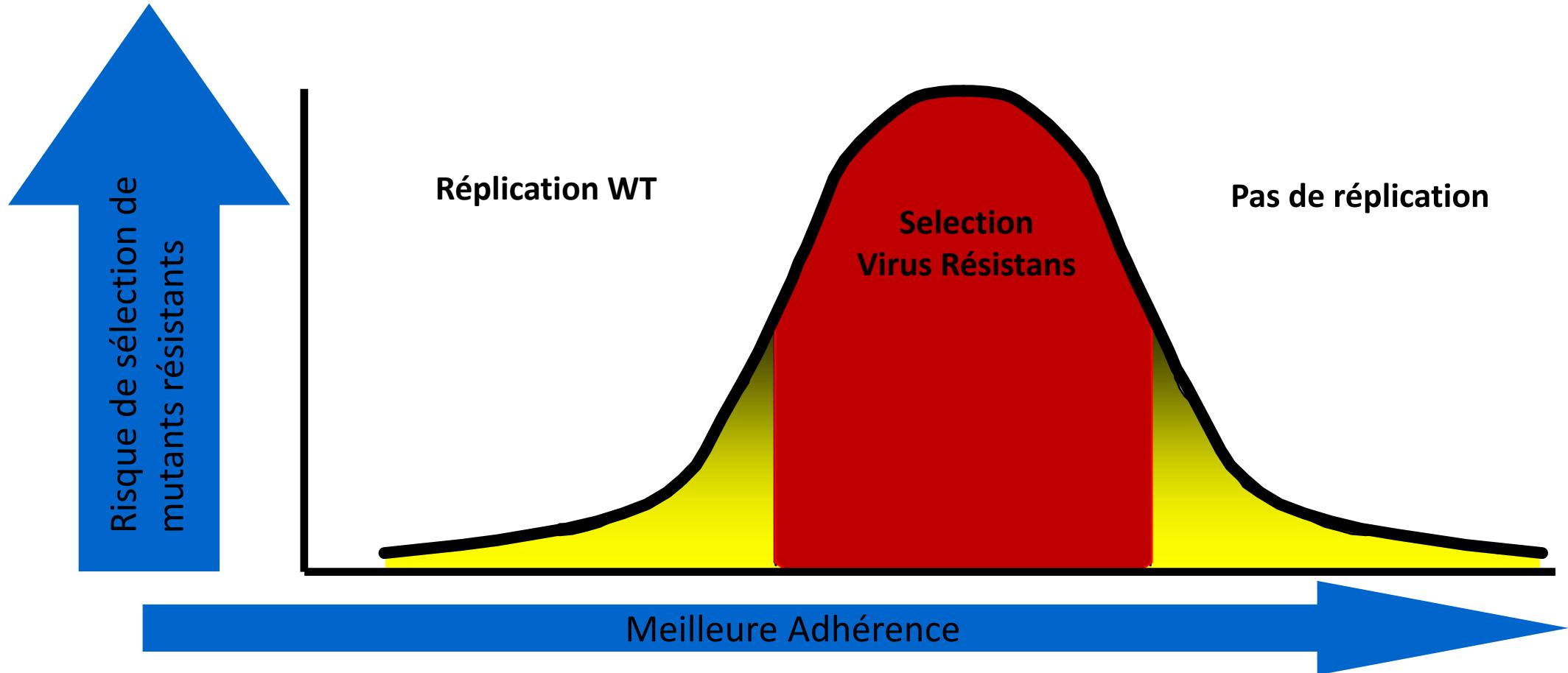


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Adherence – Rôle Central

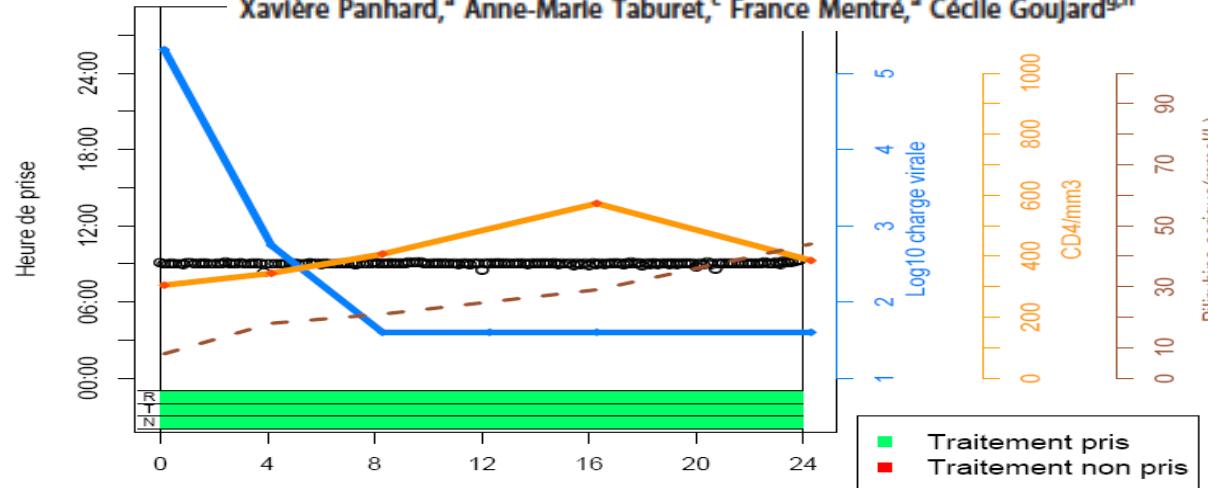


Friedland GH, Williams A. *AIDS* 1999; 13(Suppl 1):S61–72.

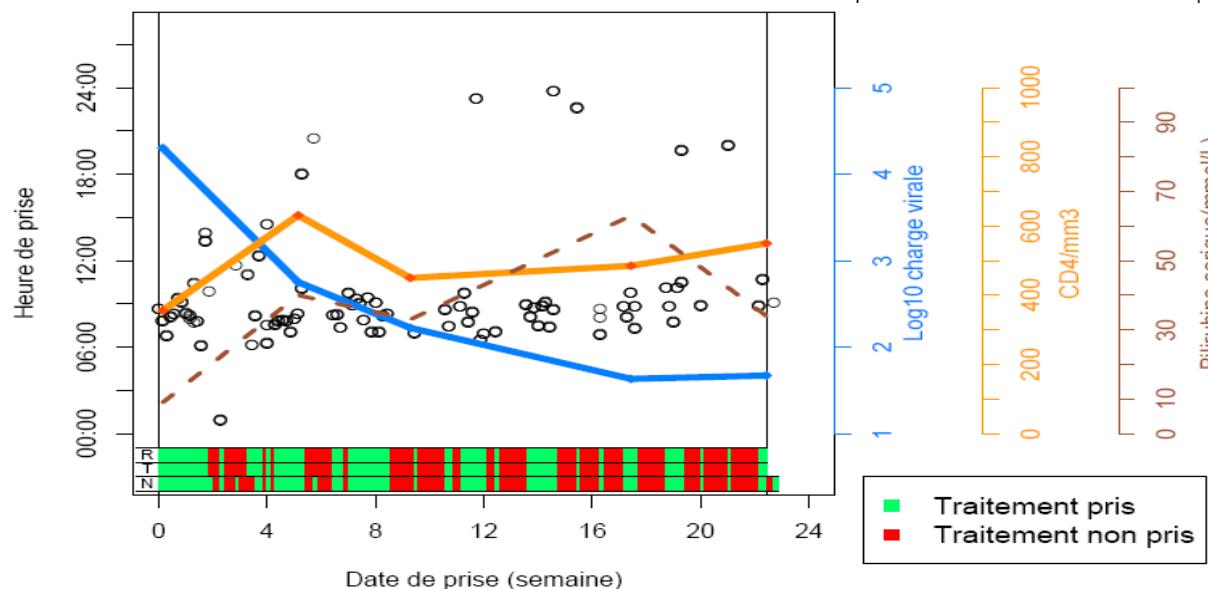
Adherence Profiles and Therapeutic Responses of Treatment-Naive HIV-Infected Patients Starting Boosted Atazanavir-Based Therapy in the ANRS 134-COPHAR 3 Trial

Jean-Jacques Parienti,^{a,b} Aurélie Barrall-Tran,^{c,d} Xavier Duval,^a Georges Nembot,^a Diane Descamps,^a Marie Vigan,^a Bernard Vrijens,^f Xavière Panhard,^a Anne-Marie Taburet,^c France Mentré,^a Cécile Goujard^{g,h}

A



B



HIV RNA (Log10)
CD4 (cell/mm³)
Bilirubinemia (mmol/L)

R: Atazanavir

T: Tenofovir+emtricitabine

N: Ritonavir

Parienti JJ et al., ACC 2013

Relation adhérence - QD - Pill burden

PROGRAMME



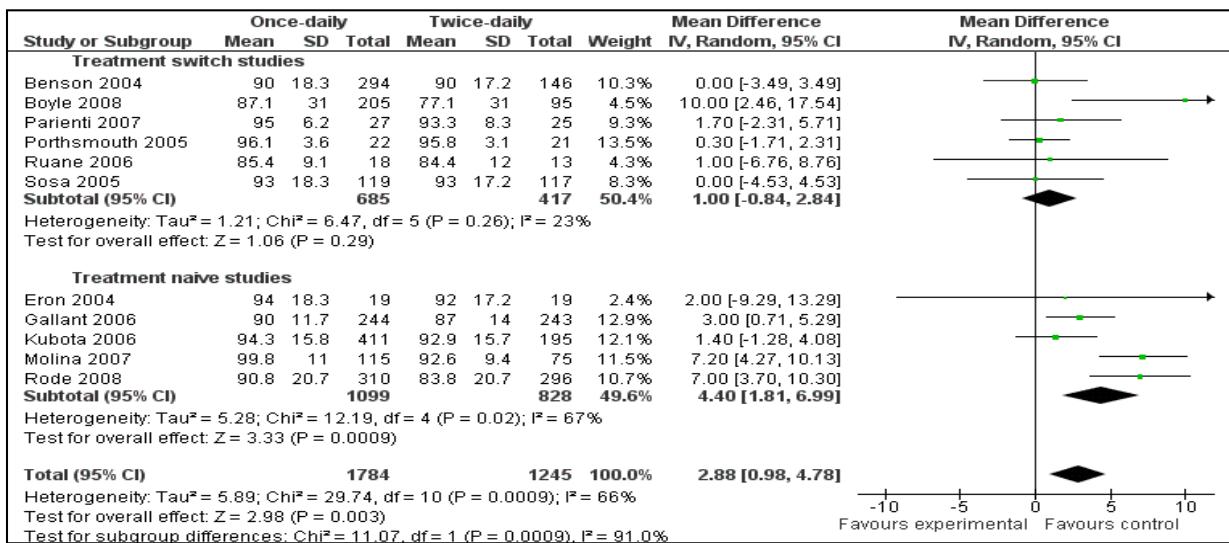
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Better Adherence with Once-Daily Antiretroviral Regimens: A Meta-Analysis

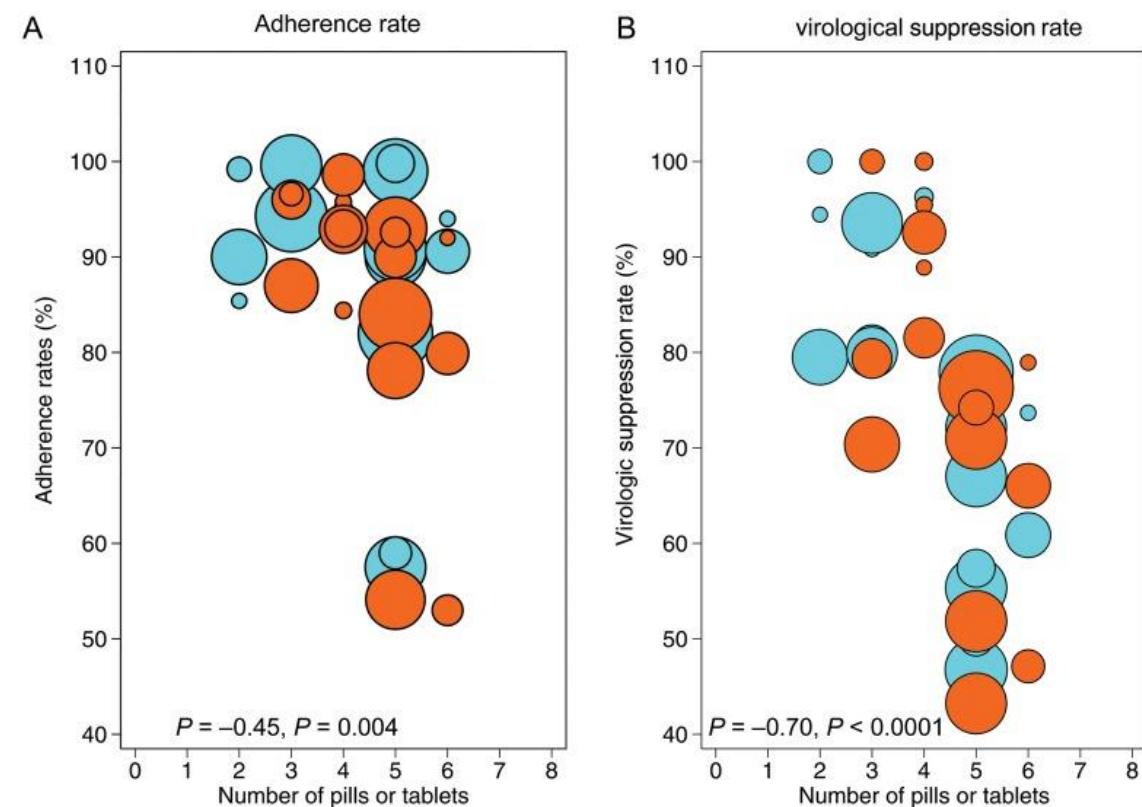
Jean-Jacques Parienti,^{1,2,3,4} David R. Bangsberg,⁵ Renaud Verdon,² and Edward M. Gardner⁶



Adapted from Parienti JJ et al., Clin Infect Dis 2009

Lower Pill Burden and Once-Daily Antiretroviral Treatment Regimens for HIV Infection: A Meta-Analysis of Randomized Controlled Trials

Jean B. Nachega,^{1,2,3,4,a} Jean-Jacques Parienti,^{5,6,a} Olalekan A. Uthman,^{7,8,9} Robert Gross,¹⁰ David W. Dowdy,² Paul E. Sax,¹¹ Joel E. Gallant,¹² Michael J. Mugavero,¹³ Edward J. Mills,¹⁴ and Thomas P. Giordano¹⁵

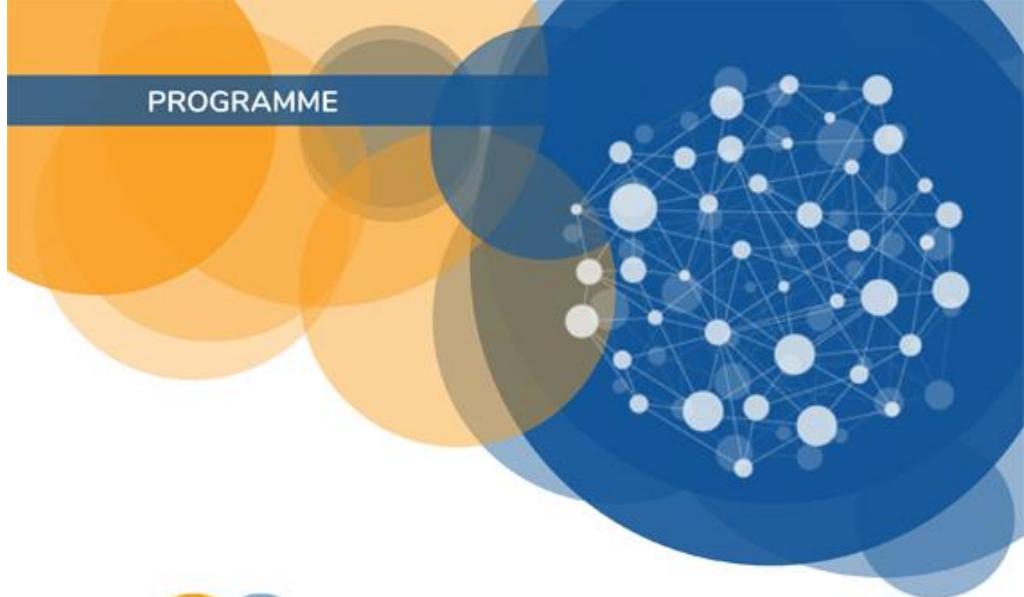


Parienti JJ et al., Clin Infect Dis 2014

Cohortes étudiant la relation

-STR

- Adhérence
- Succès



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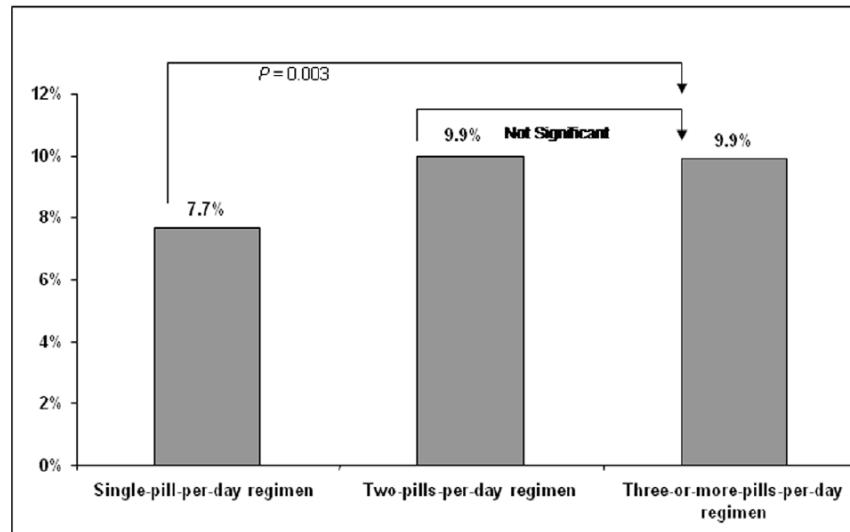
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Adherence to Antiretroviral Treatment and Correlation with Risk of Hospitalization among Commercially Insured HIV Patients in the United States

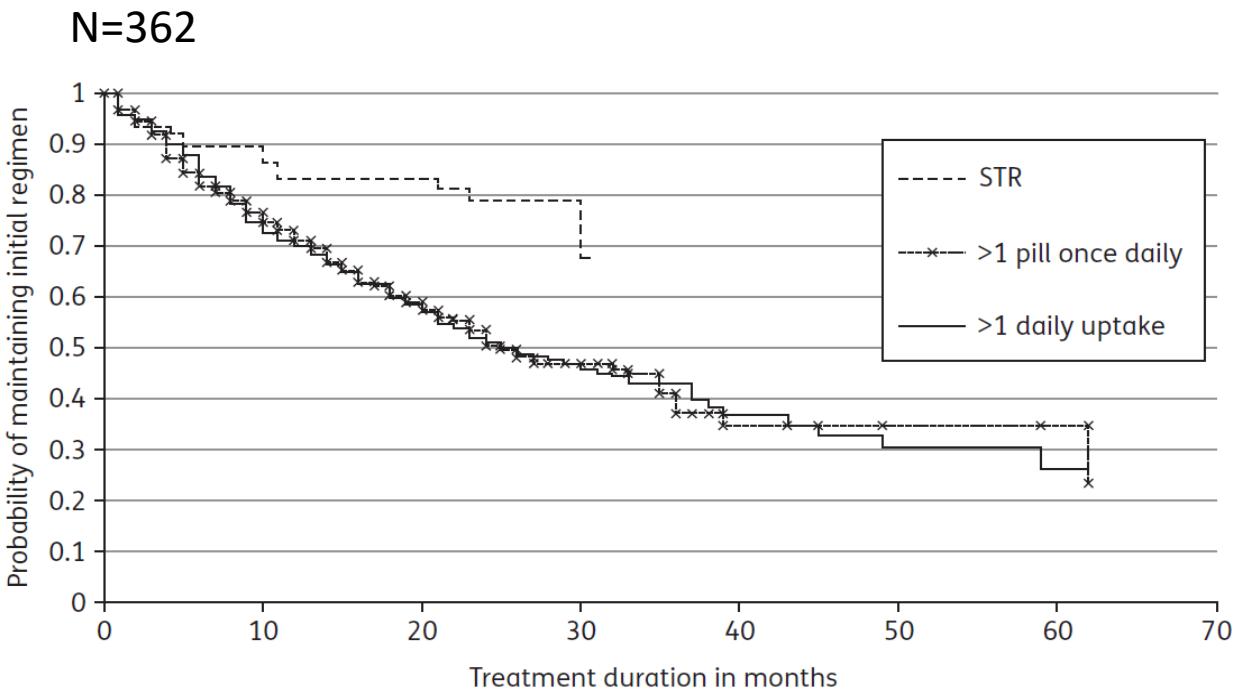
Paul E. Sax¹, Juliana L. Meyers^{2*}, Michael Mugavero³, Keith L. Davis²

Patient Cohort				P Values ^a		
	Single Pill Per Day	Two Pills Per Day	Three or More Pills Per Day	Single Pill Per Day vs. Two Pills Per Day	Single Pill Per Day vs. Three or More Pills Per Day	Two Pills Per Day vs. Three or More Pills Per Day
0.95 threshold (N, %)						
MPR≥0.95	1,114	47.10%	168	40.88%	1,468	34.16%
MPR<0.95	1,251	52.90%	243	59.12%	2,829	65.84%



Persistence and adherence to single-tablet regimens in HIV treatment: a cohort study from the French National Healthcare Insurance Database

François Raffi¹, Yazdan Yazdanpanah^{2,3}, Francis Fagnani⁴, Caroline Laurendeau⁴,
Antoine Lafuma^{4*} and Julie Gourmelen⁵



Conclusions: These results suggest that persistence is higher in HIV patients treated with an STR compared with other administration schedules. Significant benefit in terms of adherence was observed with the STR in comparison with regimens with >1 daily intake but no difference was observed when comparing with regimens involving >1 pill once daily.

Effectiveness and tolerance of single tablet versus once daily multiple tablet regimens as first-line antiretroviral therapy - Results from a large french multicenter cohort study

Laurent Cotte^{1,2*}, Tristan Ferry¹, Pascal Pugliese³, Marc-Antoine Valantin^{4,5,6}, Clotilde Allavena⁷, André Cabie^{8,9,10}, Isabelle Poizot-Martin^{11,12,13}, David Rey¹⁴, Claudine Duvivier^{15,16}, Antoine Cheret^{16,17}, Pierre Dellamonica³, Pierre Pradat^{2,18}, Jean-Jacques Parienti^{19,20}, Dat'AIDS study group¹

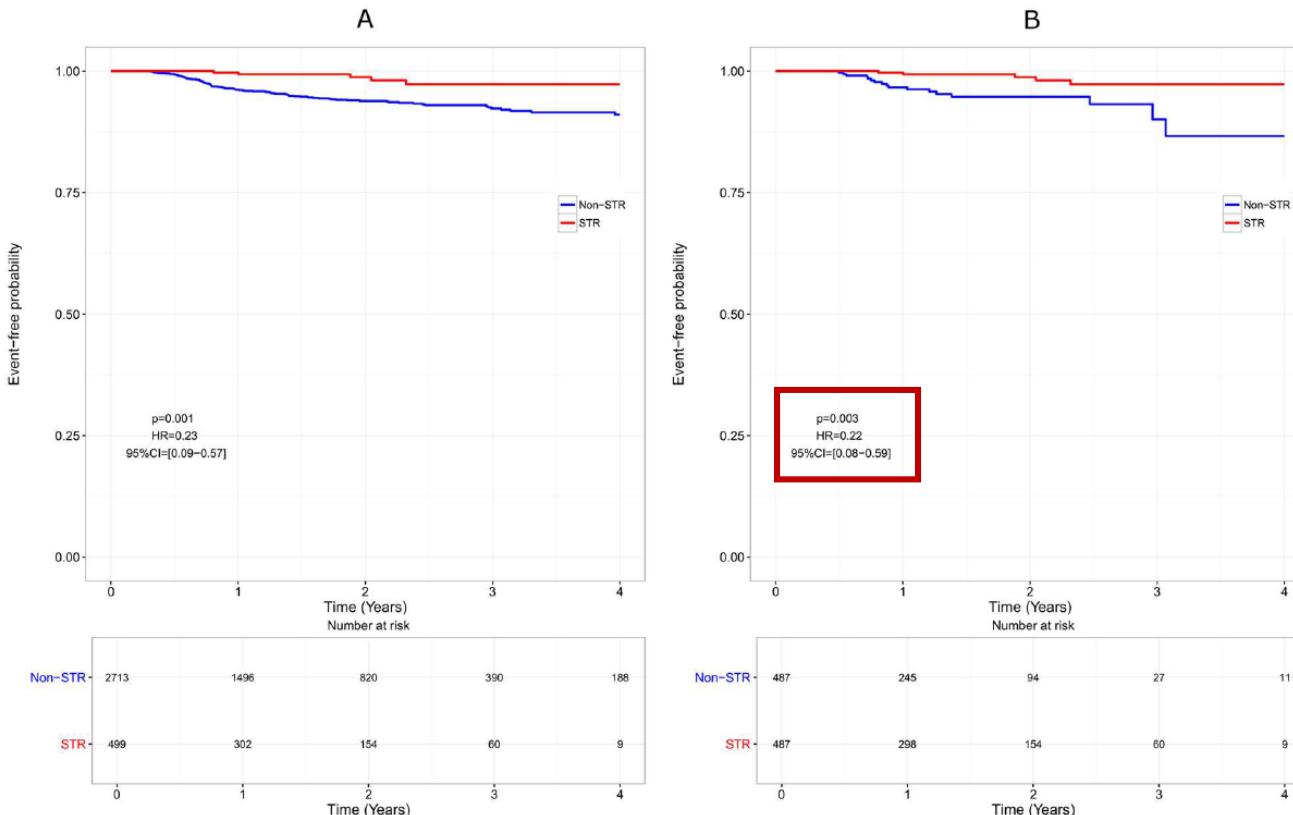


Fig 3. Virological efficacy over time. Virological failure is defined as viral load (VL) > 1000 copies/mL between W16 and W24 or VL > 200 copies/mL after W24.

Single tablet HIV regimens facilitate virologic suppression and retention in care among treatment naïve patients*

Vagish Hemmige^{a,b}, Charlene A. Flash  ^{a,b}, Josephinel Carter^c, Thomas P. Giordano^{a,b,d} and Teddy Zerai^b

^aDivision of Infectious Diseases, Baylor College of Medicine, Houston, TX, USA; ^bHarris Health System, Houston, TX, USA; ^cTexas Southern University School of Health Sciences, Houston, TX, USA; ^dCenter for Innovations in Quality, Effectiveness and Safety, Michael E. DeBakey VA Medical Center, Houston, TX, USA

Table 3. Outcomes of interest in the first year.

	STR		MTR		Unadjusted analysis	Analysis adjusted by propensity score
	#	%	#	%		
Retention in care	502	80.7	295	72.7	OR 1.57; 95% CI 1.17–2.11; $p = 0.003$	OR 1.49; 95% CI 1.10–2.02; $p = 0.011$
Virologic suppression, first year	525	84.4	315	77.6	OR 1.56; 95% CI 1.14–2.15; $p = 0.006$	OR 1.41; 95% CI 1.02–1.96; $p = 0.04$
Suppressed on original regimen, first year	494	79.4	296	72.9	OR 1.43; 95% CI 1.07–1.92; $p = 0.016$	OR 1.28, 95% CI 0.95–1.73, $p = 0.11$
PDC > 80% in first year ^a	205	33.0	122	30.1	OR 1.14; 95% CI 0.87–1.50; $p = 0.328$	OR 1.04, CI 0.79–1.38, $p = 0.77$

Note: STR, Single Tablet Regimen; MTR, Multi-tablet Regimen; PDC, proportion of days covered.

^aWe could not account for transfers to other pharmacies, so this is a lower bound estimate of adherence.

550. Adherence and Persistency With Modern Single vs. Multi-Tablet

Antiretroviral (ARV) Regimens in First Treatment of HIV in Clinical Practice

Anthony Mills, MD¹; Julie Priest, MSPH²; Alexander Musallam, MPH³; Keri Althoff, PhD⁴; Joseph Eron, MD⁵; Greg Huhn, MD⁶; Dushyantha Jayaweera, MD, MRCOG, FACP⁷; Karam Mounzer, MD⁸; Graeme Moyle, MD⁹; Joe Mrus, MD, MSc¹⁰; Moti Rampogal, MD¹¹; Steven Santiago, MD¹²; Paul Sax, MD¹³; Gene Voskuhl, MD¹⁴; Alan Oglesby, MPH² and Richard Elion, MD¹⁵

October 3-7 • San Francisco, CA • www.idweek.org



Session: 60. HIV: Antiretroviral Therapy

Thursday, October 4, 2018: 12:30 PM

Results. A total of 1,499 patients met the criteria for the study; 66% (982/1,499) received STR and 34% (517/1,499) MTR. Top STRs were EVG/c/TDF/FTC (265/982, 27%), EVG/c/TAF/FTC (250/982, 26%), and DTG/ABC/3TC (171/982, 17%). Top MTRs were DTG + TDF/FTC (69/517, 13%), DRV + RTV + TDF/FTC (60/517, 12%), and DRV/c + TDF/FTC (40/517, 8%). Average persistency for STRs was significantly longer at 252 days vs. 233 days for MTRs ($P = 0.002$). Average PDC adherence rates were significantly higher for STRs at 91% vs. 83% for MTRs ($P < 0.001$). Within the STR group, older age was significantly associated with greater adherence (average age: 45 in 80%+ adherent group vs. 42 in <80% adherent group, $P = 0.012$). In both the STR and MTR groups, the percentage of black patients was significantly higher in the non-adherent group (45% in STR, 42% in MTR) compared with the adherent group (24% in STR, 32% in MTR) ($P < 0.001$ in STR, $P = 0.027$ in MTR).

Conclusion. This study of adherence with STR vs. MTR HIV therapy is novel, as it uses more currently relevant HIV regimens and was conducted utilizing EMR, prescription, and dispensing data. The results of better adherence and persistency with STR ART underscore the ongoing importance of simpler treatment for HIV care.

Uptake and virological outcomes of single- versus multi-tablet antiretroviral regimens among treatment-naïve youth in the HIV Research Network

DC Griffith ,¹ C Farmer,¹ KA Gebo,¹ SA Berry,¹ J Aberg,² RD Moore,¹ AH Gaur,³ WC Mathews,⁴ R Beil,⁵ PT Korthuis,⁶ AE Nijhawan,⁷ RM Rutstein⁸ and AL Agwu¹ for the HIV Research Network*

Table 2 Univariate and multivariable logistic regression of factors associated with initiation of single-tablet regimens (STRs) and virological suppression at 1 year in youth living with HIV enrolled in the HIV Research Network

	Initiation of STR (n = 987)		Virological suppression at 1 year (n = 951)	
	Univariate OR (95% CI)	Multivariable AOR (95% CI)	Univariate OR (95% CI)	Multivariable AOR (95% CI)
STR	—	—	1.84 (1.22–2.76)	1.81 (1.01–2.58)
Male	4.43 (3.11–6.31)	5.10 (2.80–9.28)	2.29 (1.39–3.75)	1.52 (0.63–3.70)
Paediatric site	0.95 (0.63–1.45)	0.60 (0.36–0.97)	1.84 (0.85–3.98)	2.32 (0.97–5.55)
HIV risk factor				
Heterosexual	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
MSM	2.80 (2.04–3.84)	0.89 (0.51–1.54)	1.77 (1.10–2.82)	0.87 (0.39–1.94)
Other	1.09 (0.56–2.13)	0.65 (0.31–1.41)	0.67 (0.26–1.75)	0.43 (0.15–1.22)
Race				
Black	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
White	0.82 (0.55–1.22)	0.72 (0.847–1.12)	2.34 (1.16–4.73)	2.41 (1.13–5.13)
Hispanic	1.12 (0.79–1.58)	0.98 (0.68–1.42)	2.00 (1.14–3.46)	2.38 (1.32–4.27)
Other	1.36 (0.67–2.76)	1.02 (0.48–2.15)	3.18 (0.73–13.91)	3.13 (0.66–14.99)
CD4 count				
< 200 cells/ μ L	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
200–350 cells/ μ L	1.54 (1.04–2.27)	1.55 (1.01–2.37)	1.71 (1.01–2.89)	1.71 (0.96–3.03)
351–500 cells/ μ L	1.62 (1.08–2.41)	1.43 (0.91–2.25)	2.88 (1.60–5.20)	2.90 (1.49–5.65)
> 500 cells/ μ L	1.84 (1.22–2.78)	1.72 (1.05–2.82)	3.67 (1.87–7.22)	3.36 (1.56–7.22)
Viral load				
400–9999 copies/mL	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
10 000–49 999 copies/mL	1.20 (0.82–1.76)	1.15 (0.75–1.75)	1.25 (0.69–2.27)	1.29 (0.68–2.47)
50 000–99 999 copies/mL	1.17 (0.76–1.80)	0.99 (0.62–1.60)	1.02 (0.53–2.00)	1.08 (0.52–2.26)
> 100 000 copies/mL	1.02 (0.70–1.48)	0.99 (0.64–1.53)	0.94 (0.54–1.64)	1.22 (0.64–2.34)
Year				

Conclusion

- Chez le patient naïf, qu'on ne connaît pas
 ➡ « Simpler better » pour commencer
- Chez le patient contrôlé, ayant fait la preuve de:
 - Sa bonne rétention aux soins
 - Sa bonne adhérence aux traitement ARVs ➡ « Less simple & cheaper, if agreed »



Remerciements

- David R. Bangsberg
- Ira B. Wilson
- David L. Paterson
- Edward M. Gardner
- Moupani Das
- Steven G. Deeks
- David Guzman
- Becky Genberg
- Kathleen Ragland
- Marie-Paule Schneider
- Matthias Cavassini
- Bernard Vrijens
- Thomas Giordano
- Guillaume Gras
- Laurent Hocqueloux
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- Fabien Chaillot
- Pascale Goubin
- Philippe Feret
- Jean-Jacques Dutheil