IAS 2013

7th IAS CONFERENCE ON HIV PATHOGENESIS, TREATMENT AND PREVENTION

30 June - 03 July 2013 - Kuala Lumpur, Malaysia

TasP (kein exotisches Tier...) und ein wenig Hepatitis

Enos Bernasconi
Ospedale Regionale Lugano

Zambia consultation- March 2013

International AIDS Society
Stronger Together Against HIV

Financing	• new partnerships and alternative funding mechanisms: mining licenses, corporate social responsibility programmes, levies • tracking investment of the government in treatment and health care
Behavioural issues	• investment in prevention • adherence to ART
Patient centred approach	• making testing accessible and acceptable • reduction of barriers to ART initiation
Human rights	• voluntary and confidential testing • patients' choice when to start treatment • decriminalization of sex work, IDU and MSM
Country ownership	• adoption of TasP as a national policy • TasP as a way to establish National Health Fund • opportunity to consolidate policies

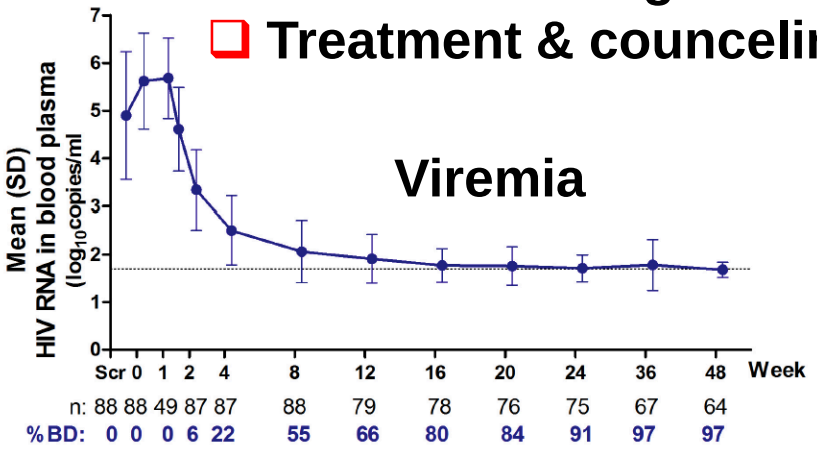
Scenario Definitions for New Prevention Technologies

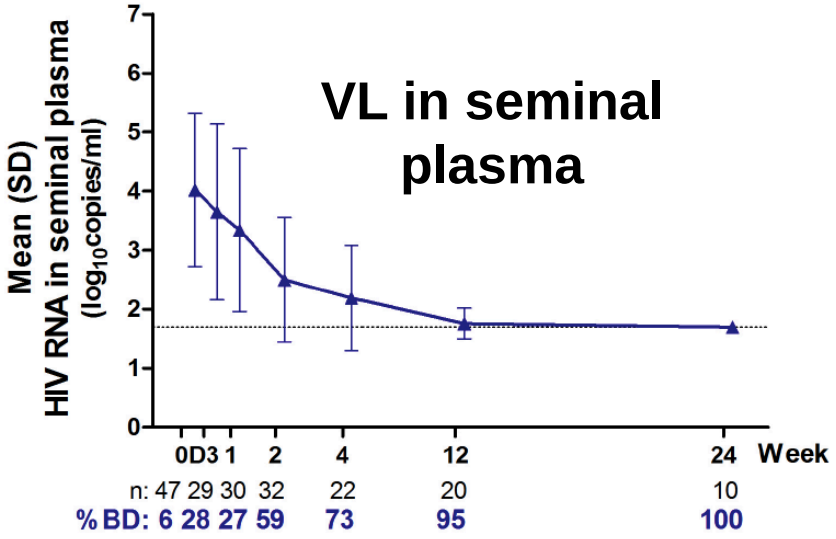
Technology	Population Groups	Year of First Availability	Year Target Coverage is Achieved	Target Coverage Low/High scenarios	Effectiveness
Universal Treatment	All other HIV+ population withCD4 counts > 500 cells/µl	2014	2025	40% / 60%	96% (60%,80% for sensitivity analysis)
Pre-Exposure Prophylaxis	MSM	2013	2025	20% / 60%	Before 2018: 44% After 2018: 70%/90%
	Female sex workers	2018	2025	10% / 25%	
	Discordant couples	2020	2025	10% / 30%	
	Adolescents in hyper-endemics	2018	2025	0% / 30%	
Vaccine	Adult population in generalized epidemics	2025 (high) 2030 (low)	2032 (high) 2035 (low)	40% / 70%	60% (low) 80% (high)
	High- risk population in concentrated epidemics	2025 (high) 2030 (low)	2032 (high) 2035 (low)	30% / 60%	

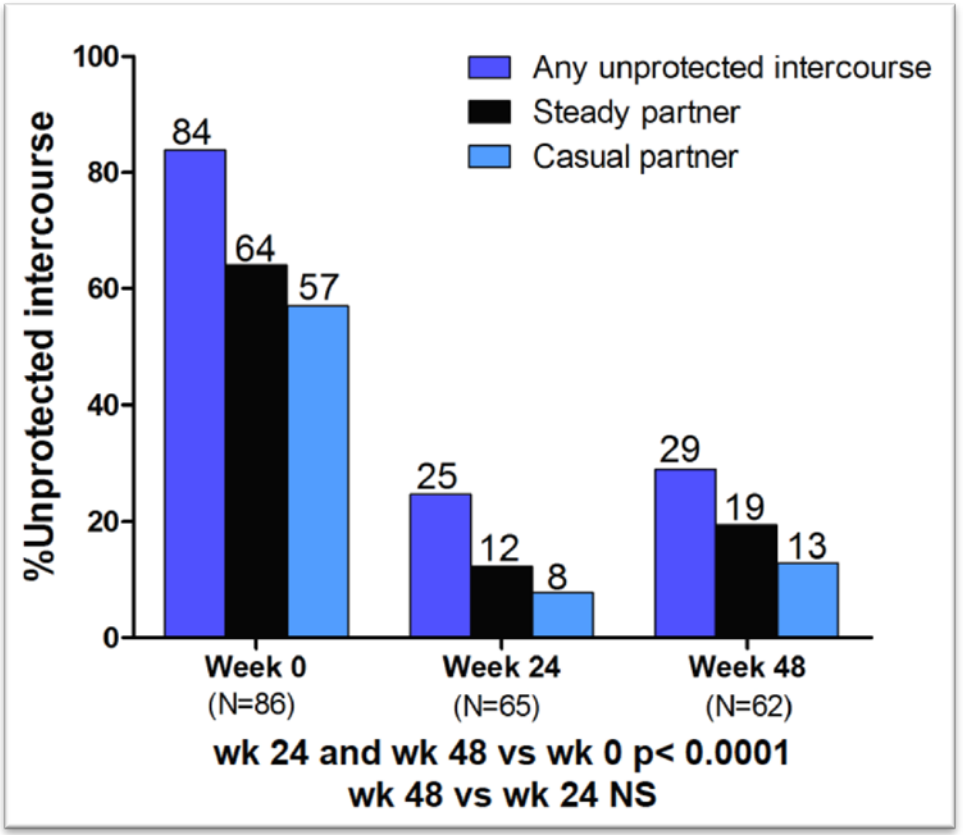
Godfrey-Faussett et al., WHO Satellyte, 30.06.13

Therapie: Erfolg in der Prävention !

- 88 MSM in Bangkok with acute HIV infection
- Treatment & counceling: Virologic outcome and behaviour

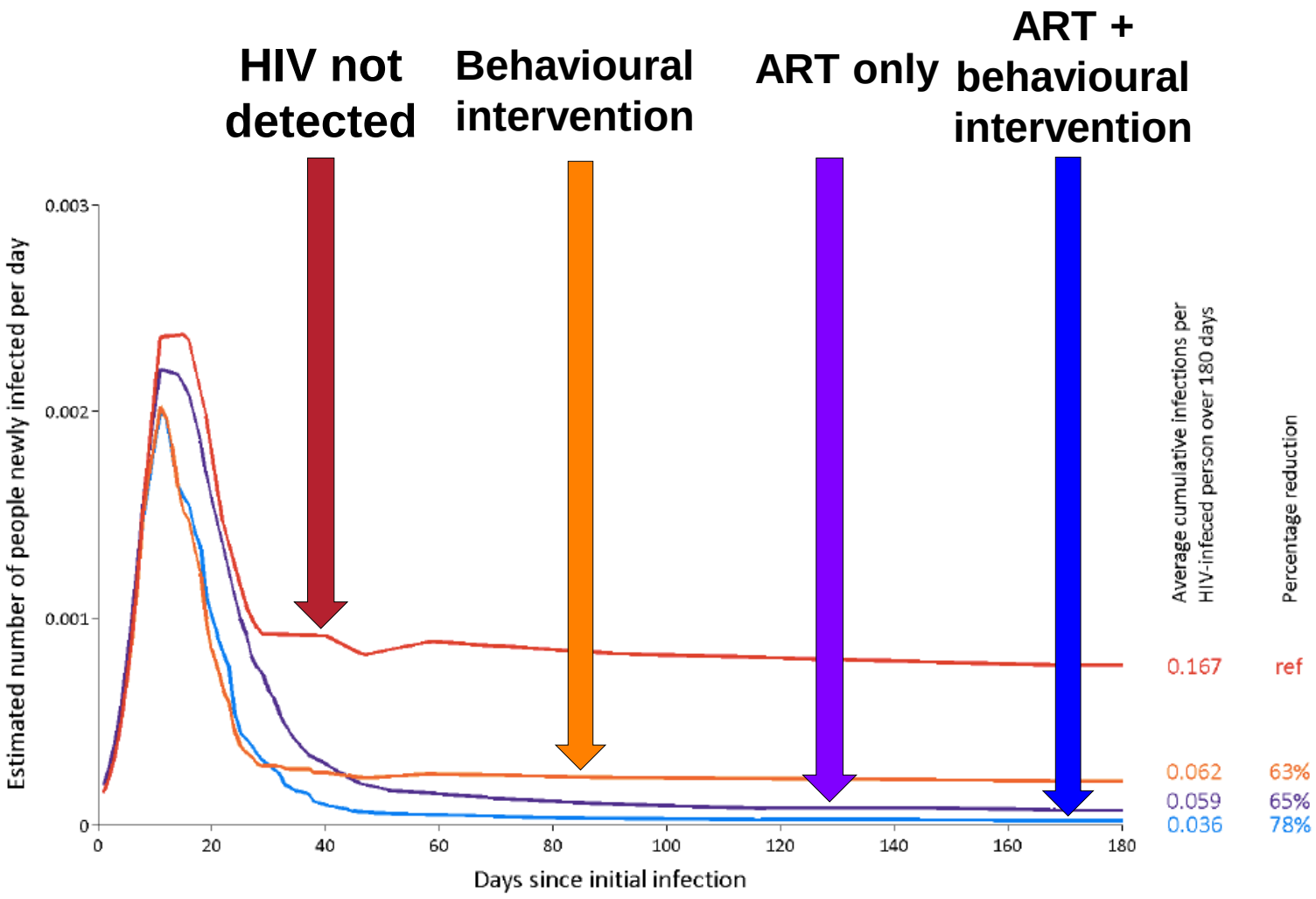






Van Griesven et al. WELBC03

…mit zusätzlichem Potential



On ART: 100% VL undetectable at weeks 12 and 24 in seminal plasma (100% correlation with blood)

Wilson et al. Kirby Institute, University of New South Wales

Weitere Stimmen und Caveat im Kurze

- Metanalysis of observational studies: **ART linked to *lower* sexual risk taking and fewer new STI diagnoses** (Doyle et al, WEPDB0105)

- French longitudinal study: 153 MSM on stable ART, viremia < 50 cp/ml > 6 months, **HIV detected in 23/304 semen samples** (7.6%) (Ghosn J, MOPE142)

- Australian study: **Perceived undetectable viral load strongly predicted condom-free anal intercourse** in 76 HIV-discordant gay couples (and the perception was wrong (7%) (Bavinton, MOLBPE30)

Aber: Welche ART für TasP?

Criteria endorsed by 19 French experts for ART selection and applicability for a “test & treat” approach:

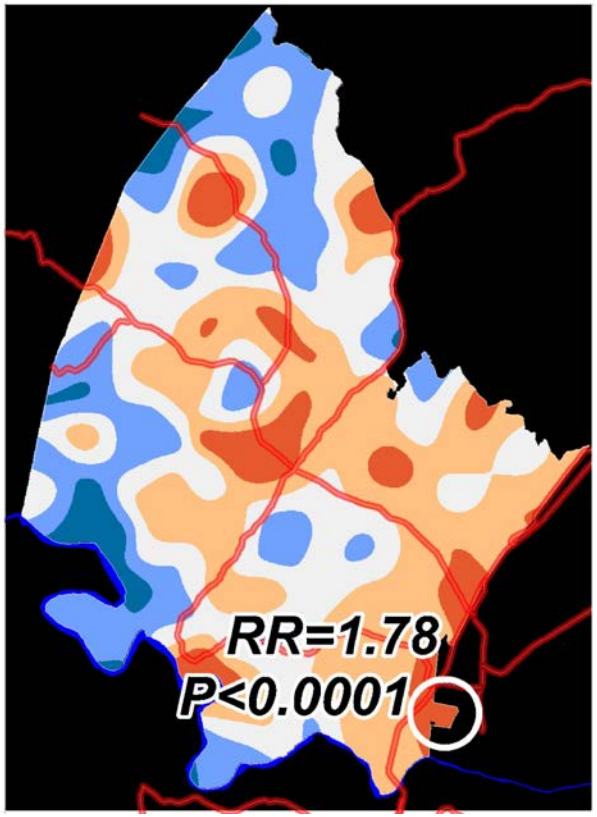
- **Tolerance**, **side effects**, and/or **toxicity profile** of ART
- **Simplicity** (e.g. Rx schedule, dosage form)
- **Individualization** of Rx (eg. adapted to lifestyle, perceptions of Rx)

“Minimal interference”: ART for TasP should have optimal tolerance, low toxicity and simple administration
BUT
No one-size-fits-all approach

Lebouché et al. MOPE145

ART, Virämie & Transmissionspotential

Population prevalence of detectable virus (PPDV) in rural KwaZulu-Natal



Prevalence (%)

- <5%
- 5 - 10%
- 10 - 15%
- 15 - 20%
- >20%

Population prevalence of detectable virus (PPDV) successfully identified known areas of continued high HIV incidence

Tanser* et al., TUSY0405 (author of the Science paper on reduction of HIV acquisition with increasing ART coverage)

Neue Medikamente für PrEP

	Mechanism	Dosing route	Frequency	Stage of developm.
Maraviroc	CCR5 antag.	ORAL	once daily	Phase 2, enrolling
Rilpivirine	NNRTI	IM	monthly	Phase 1; Phase 2 planned
Dapivirine	NNRTI	RING	monthly	Phase 3, enrolling
Ibalizumab	CD4 attachm. inhibitor	SC	weekly	Phase 1, pilot
744-LAP	Integrase inhibitor	IM	quarterly	Phase 1; Phase 2 planned

Gullick. MOBS0204

Low level HBV Replikation unter TDF

Objective

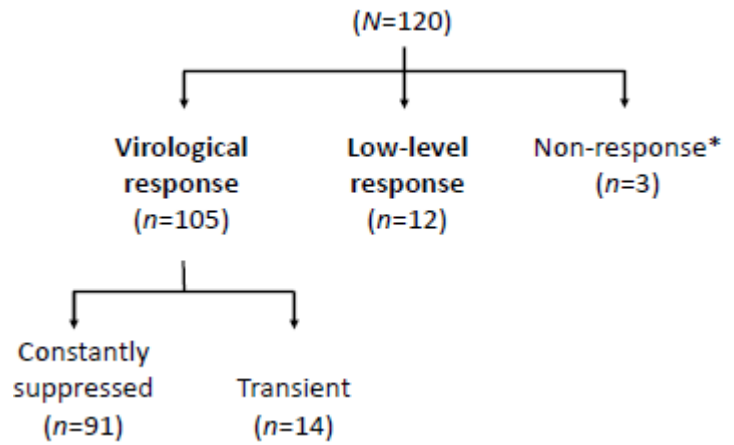
- To determine rates and risk factors of virological response, transient and low-level replication in HIV/HBV coinfected patients treated with TDF

Methods

- Multi-center, prospective study from French cohort
- HIV/HBV-coinfected patients on TDF ≥ 12 months
- HCV-infected excluded
- Classification at end of fup: Virological response (VR), low-level response (LLR) and Non-response (NR)

Boyd et al. WEPE480

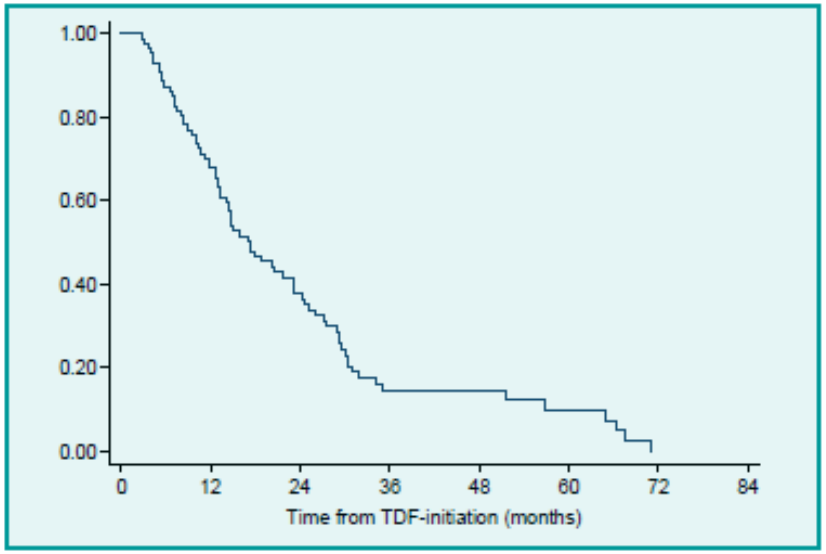
Low level HBV-DNA unter TDF: Ist das schlimm?



Baseline characteristics between co-infected patients with virological response (VR) and low-level response (LLR)

	HBV replication profiles		
	VR (*n*=105)	LLR (*n*=12)	*p*[1]
Age*	41.8 (37.3-48.4)	38.3 (34.7-46.1)	0.3
HBV-infection duration*[2]	8.2 (3.4-11.9)	6.9 (3.1-10.1)	0.4
Prior LAM**	101 (96.2)	12 (100)	0.9
Detectable HBV-DNA**	72 (68.6)	12 (100)	0.02
HBV-DNA*	4.25 (2.94-6.42)	5.93 (4.02-7.08)	0.07
HBeAg-positive**	71 (67.6)	15 (100)	0.02
LAM-resistance** [*N*=85]	55 (75.3)	11 (91.7)	0.2

Cumulative probability of achieving undetectable HBV in HIV-HBV co-infected patients treated with TDF



Median duration of TDF therapy was 6.1 years (IQR=2.8-7.9).
HBV-DNA was detectable in 72.5% of patients at baseline

	VR	LLR
Hbe Ag loss	**22 (31%)***	**0**
Hbe seroconversion*	7 (9.9%)	0
HBs Ag loss	4 (3.8%)	0

- Low-level replication fairly common on TDF
- Lack of optimal HBV-control has a negative impact on serological outcomes (clinical relevance?)

HCV Reinfektion bei HIV+ MSM (London)

Methods

- Retrospective analysis of HIV+ MSM with sexually acquired HCV who spontaneously cleared or underwent successful HCV treatment during 2004-2012

Results

- **44 of 191 patients reinfected (7.8/100py (95%CI 5.8-10.5))**
- 8 second reinfections
- spontaneous clearance: 20%
- SVR: 73% (16/22) for genotype 1/4 and 100% (2/2) for genotype 2/3
- Reinfections: 25% of them within 2 years of first infection
- **Incidence of reinfection lower in those who cleared first infection spontaneously vs. after treatment (4.2/100py vs. 9.6/100py): Partial immunity in those clearing spontaneously?**

Martin et al. TUAB0101

HIV/HCV: Leberbiopsie oder Fibroscan?

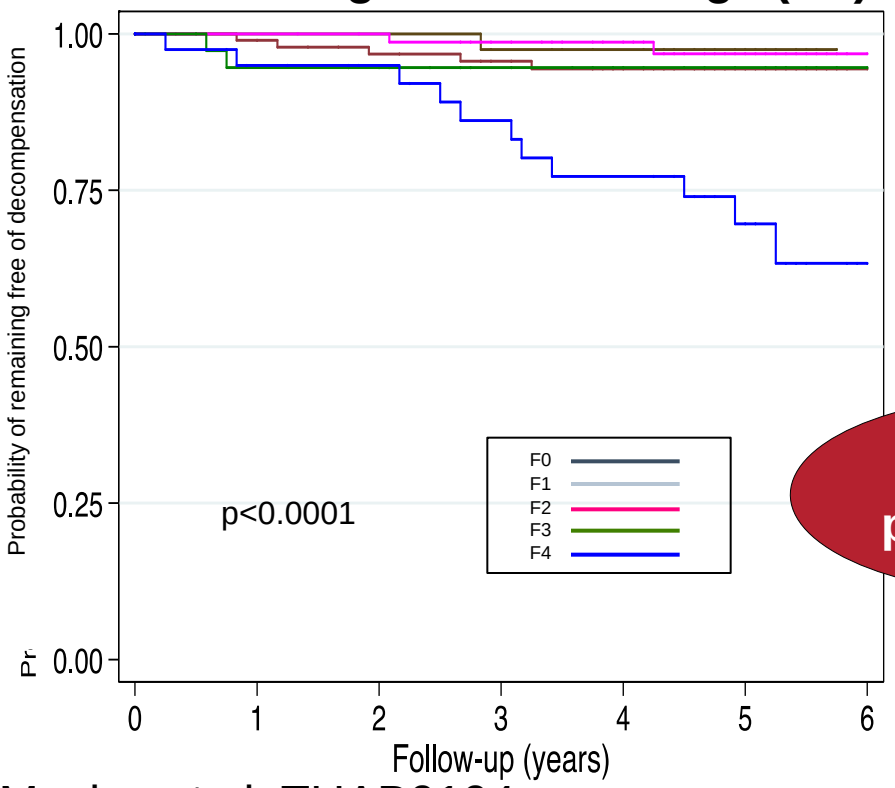
Probability of decompensations of cirrhosis (n=297, 2005-11)

Median (IQR) follow-up: 5 (4.2-5.4) years. Lost to follow-up: 26 (8.8%) patients.

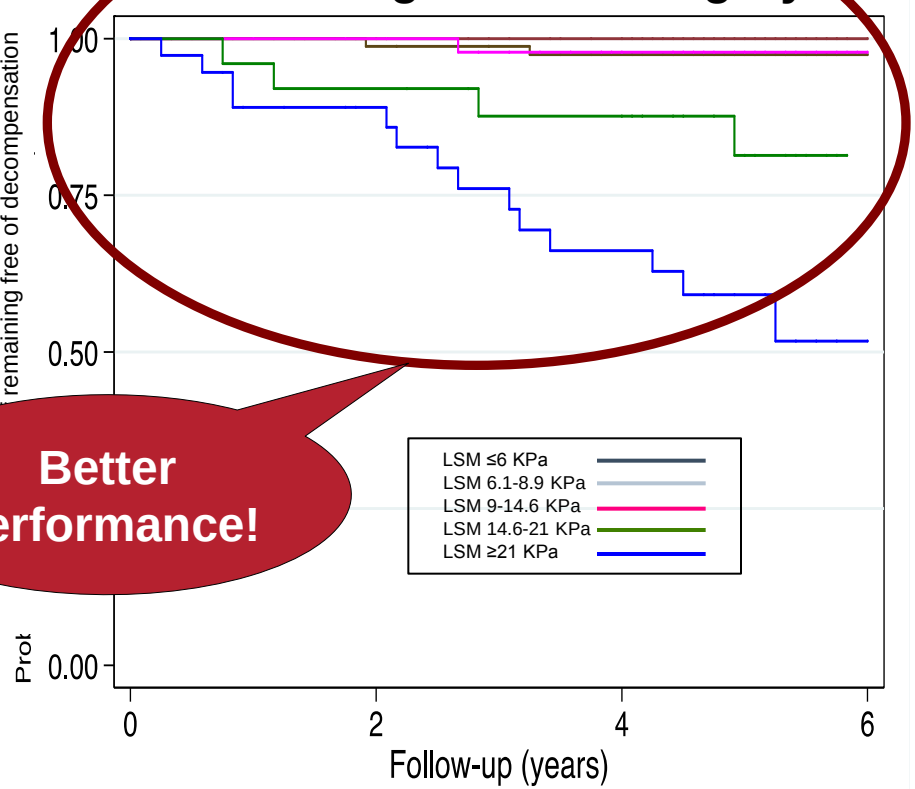
Decompensations: 21 (7.1%, 95%CI: 4.1%-10%).

- Ascites: 12 (57%)
- Portal hypertensive gastrointestinal bleeding: 4 (19%).
- Hepatic encephalopathy: 2 (9.5%).

According to fibrosis stage (LB)



According to LSM category



Better performance!

Macías et al. TUAB0104