



APSEC

HIV patients and health providers viewpoints and preferences regarding hypothetical participation in Cure clinical trials Results from the ANRS-APSEC survey

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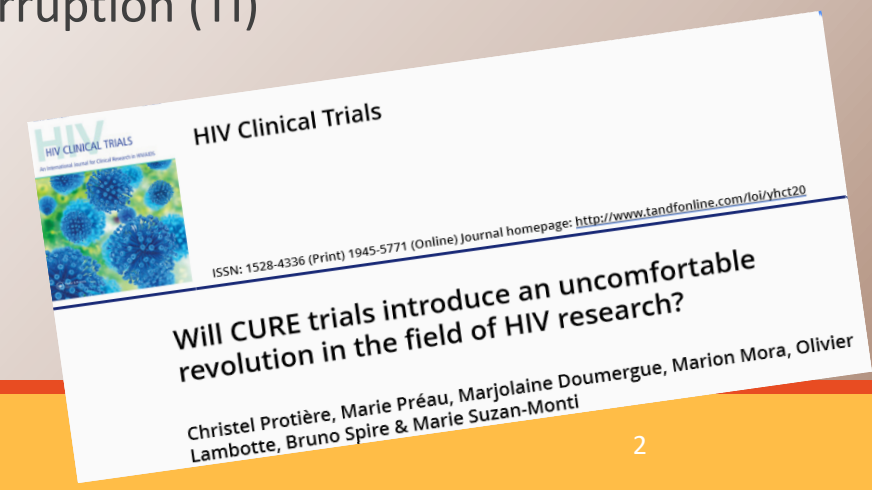
Context

Scientific and therapeutic progresses allow considering HIV cure-related clinical trials (HCRCT) which could lead to transitory/definitive antiretroviral treatments (ART) interruption

HCRCT raised hope but also ethical questions

- target persons living with HIV (PLWH) treated and controlled, living “normal” lives
- poor individual benefit-risk ratio (uncertainty, potential side effects, no guarantee of any direct benefit)
- question individual and collective consequences of ART interruption (TI)

=> Are these trials acceptable? Under which conditions? For who?



What do we know from the social sciences literature? (mainly only among PLWH)

1. **Interest** in participating in HCRCT for a numbers of PLWH despite the lack of direct personal benefits
-> But higher rate of declared participation observed in quantitative surveys compared to qualitative surveys
2. **Altruism** has been shown to be a major motivation
3. Fear of **side effects**, fear of increased **risk of transmission** due to TI, **burden** associated with appointments and exams, **poor** expected personal benefits and **uncertainty** were also important decision criteria
4. Importance of designing cure trials **considering** the preferences of **PLWH** but also, knowing the importance of the patient-physician relationship, preferences of Health Providers (**HP**)

What do we not know:

1. What is the **relative** importance of each of the decision criteria?
2. **Which** cure strategies are preferred?
3. Did PLWH have the **same** preferences/viewpoints than health providers?



ANRS-APSEC: an integrated survey, all stakeholders

Step 1: Qualitative

- Eliciting PLWH' and health provider (HP)' perspectives regarding HCRCT
 - Individual and collective interviews

Step 2: Mixt

- Eliciting PLWH' and health provider (HP)' main viewpoints regarding participating/proposing HCRCT
 - Q methodology

Step 3: Quantitative

- Determining the preferred cure strategies for PLWH and physicians
 - Discrete Choice Experiment

Materials and methods

Study Population:

- **PLWH**: stable ART \geq 6 months, undetectable viral load, CD4 >500
- **HP**: physicians, nurses and clinical research technicians

Overall study design:

A qualitative approach (Sept-Dec 2014)

- 6 **focus group** discussions, 21 PLWH & 30 HP, 3 French infectious disease units

A mixed approach: Q methodology (June-July 2015)

- **Q** enables a relative prioritization and give a **multidimensional picture** of the subject at stake
- Respondents have to rank order statements regarding cure participation on a grid
- Factorial analysis to identify the structure of the main shared viewpoints

A quantitative approach: Discrete choice experiment (Oct 2016 - March 2017)

- **DCE** enables to estimate the value associated with any given cure strategy
- Cure strategies described with 5 attributes (each having 2 or 3 levels)
- 13 pairs of strategies were submitted to participants' choice

Three perspectives

1. *Individual*: a comparative posture highlights the deficit in the individual benefit / risk balance

2. *Epidemiological*: refusal to renounce to prior knowledge acquired from therapeutic advances

3. *Community*: perception of research as a common militant history

Three perspectives



1. *Individual*: a comparative posture highlights the deficit in the individual benefit / risk balance

HIV seen as a chronic manageable illness and Cure trials seen as a source of uncertainty

2. *Epidemiological*: The refusal to renounce to prior knowledge acquired from therapeutic advances

Cure trials seen as a loss of infection control, with a focus on the treatment interruption period

3. *Community*: perception of research as a common militant history

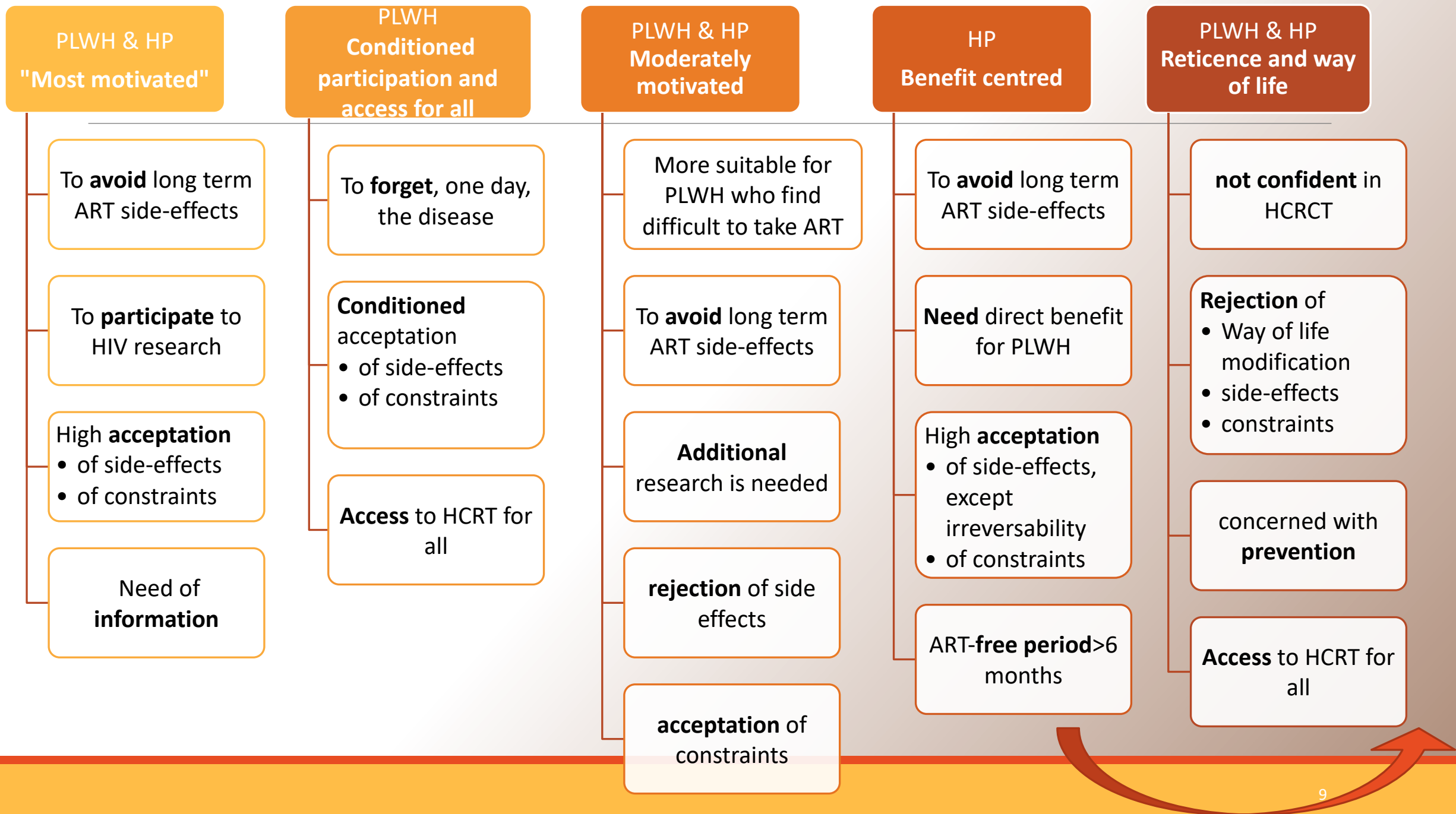
Cure trials seen as a potential therapeutic innovation, emphasize on the patient-physician relationship and on the beginning of the mobilization against HIV/AIDS

Elicitation of viewpoints based on 7 dimensions

From the 3 perspectives → 7 dimensions identified, illustrated with 33 statements

- Treatment modalities and follow up (5 statements),
- Risk, side effects and QoL (6 statements),
- Patient-physician relationship (3 statements),
- Belief and attitudes (4 statements),
- Benefits (7 statements),
- Information (4 statements)
- Target population (4 statements).

	PLWH (n=41)	HP (n=41)
Women	19,5%	66%
Age [median (25th – 75th)]	49 (41 – 53)	47 (38 – 53)
HIV experience [median (25th – 75th)]	14 (9 – 21)	15 (6 – 20)
Would participate/propose		
yes, certainly	63,4%	58,5%
yes, maybe	34,1%	34,1%



5 viewpoints: a gradient of acceptability of HCRCT

- 2 were population-related viewpoints
- All placed importance on the wish to participate in HIV research.
- For some viewpoints, motivation was primarily conditioned by side-effects and/or by constraints
- Some viewpoints placed particular importance on HCRCT recruitment strategies.
- Some viewpoints emphasized the need for information

What about preferences between several specific strategies? -> DCE

Trade-off between attributes

Attribute / level	All (n=355)	
	β^{***}	SE
Severe side effects (ref=0: Allergy, infections, cancer risk)		
Allergy	5,17	0,41
Allergy, infections	4,37	0,36
Consultation frequency (ref=0: Weekly)		
Monthly	2,49	0,20
Outcomes: interruption & chance of success (ref=0: 3-6 months, 5%)		
6-12 months, 10%	2,09	0,21
Moderate side effects (ref=0: Flu syndrome, digestive disorders, fatigue)		
Digestive disorders	1,86	0,22
Flu syndrome	1,14	0,24
Trial duration (ref=0: 15-18 months)		
6-9 months	0,48	0,11

Best theoretical strategy

- 6-9 months duration
- Monthly consultation
- Allergy
- Digestive disorders
- 6-12 months interruption, 10%

Utility score = 100

Worst theoretical strategy

- 15-18 months duration
- Weekly consultation
- Allergy, infection, cancer risk
- Flu syndrome, Digestive disorders, Fatigue
- 3-6 months interruption, 5%

Utility score = 0

PLWH made different trade-offs than physicians

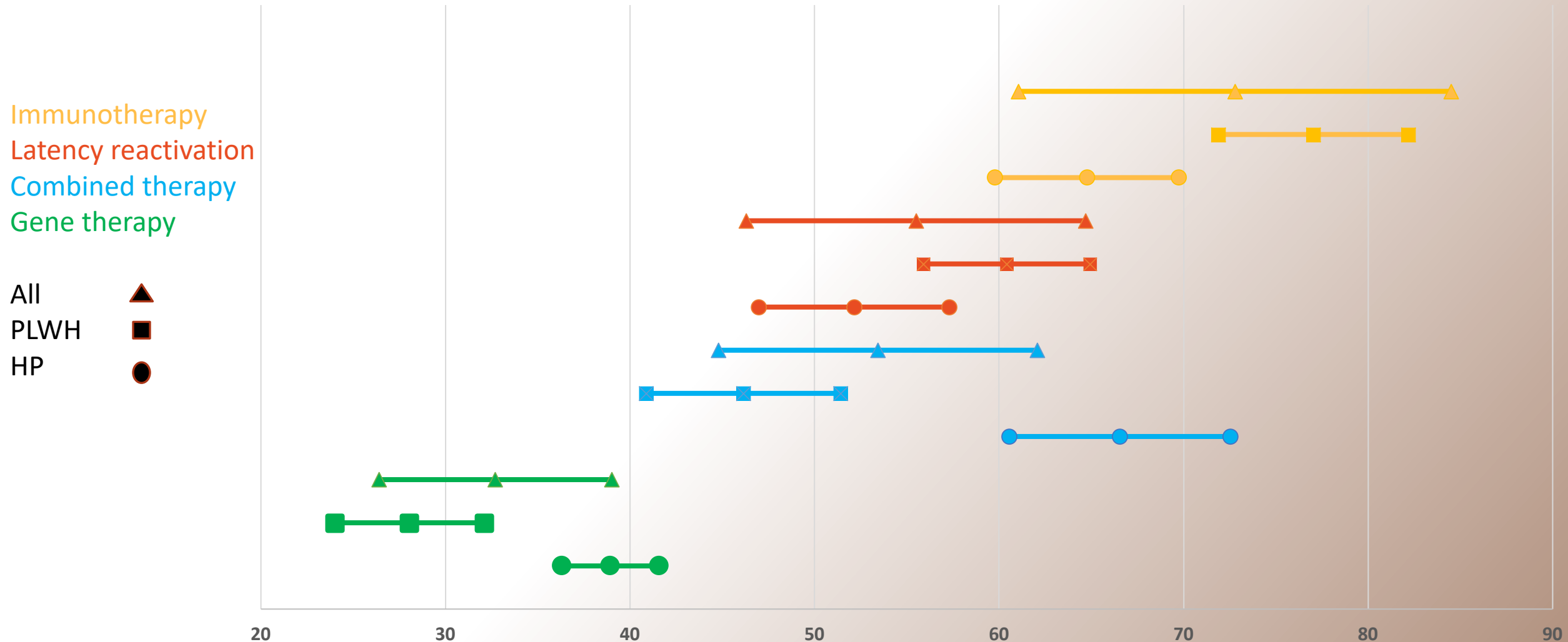
Attribute / level	PLWH (n=195)	Physicians (n=160)
	β^{***}	β^{***}
Severe side effects (ref=1: Allergy, infections, cancer risk)		
Allergy	4,52	10,54
Allergy, infections	3,87	10,12
Consultation frequency (ref=1: Weekly)		
Monthly	2,50	4,95
Outcomes: interruption & chance of success (ref=1: 3-6 months, 5%)		
6-12 months, 10%	1,14	6,77
Moderate side effects (ref=1: Flu syndrome, digestive disorders, fatigue)		
Digestive disorders	1,90	3,12
Flu syndrome	1,34	0,94
Trial duration (ref=1: 15-18 months)		
6-9 months	0,79	0,16

HCRCT strategies covering the main cure approaches

(translated according to their respective level of attributes)

	Latency reactivation (A)	Immunotherapy (B)	Gene therapy (C)	Combined therapy (A+B)
Trial duration	6-9 months	15-18 months	15-18 months	15-18 months
Consultation frequency	Weekly	Monthly	Weekly	Weekly
Moderate side effects (1-10%, few days)	Digestive disorders	Flu syndrome	Digestive disorders	Digestive disorders, flu syndrome, fatigue
Severe side effects (<1/1 000)	Allergy, infections	Allergy	Allergy, infections, risk of cancer	Allergy, infections
ART interruption: duration, % of success	3-6 months, 5%	3-6 months, 5%	6-12 months, 10%	6-12 months, 10%

Utilities associated with the 4 specific strategies



Summary of the APSEC results: some concordances

- Importance of **altruistic benefits** (participating to HIV research / advances for future generations)
- Trial outcomes, even if more valuable for physicians, are not the most important attribute
- Severe side effects are the most important attributes for all stakeholders despite the context of innovation
 - ✓ Patients more willing to accept some of the side effects than health professionals *“if the physician propose it to me, it means it’s good for me”* => Trust
- The wish of a **regular feedback** from the physicians on HCRCT **results during** the trial

Summary of the APSEC results: some differences

- Risk of transmission and financial incitation are no longer decisive criteria in the decision to participate
- PLWH and physicians do not give the same values to CURE strategies or priorities for some of the trade-off made between attributes
- The declared rate of participation is a function of the qualitative-quantitative approach
 - ✓ Opposition or *complementarity* ?

Concluding remarks

Strengths:

- The sample
 - Physicians having different degree of familiarity with HIV cure research,
 - PLWH meeting the clinical criteria required for future cure trials; men, women, homosexuals, heterosexuals
- The design of the project and the concordance of the results

HIV cure research is included in the social and historical construction of HIV

=> The main motivation for participating is activism spirit

=> The most common decisive criteria is the level of severe side effects

=> And now, what about in real life ?



Thank you for your attention !



APSEC

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