Factors Associated with Healthcare Providers' Preference for Forgoing an Oral Lead-in Phase when Initiating Long-acting Injectable Cabotegravir and Rilpivirine in the SOLAR Clinical Trial

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Background

The Extension Phase of the FLAIR trial demonstrated similar efficacy and safety in maintaining viral suppression at week 124 among cabotegravir (CAB) and rilpivirine (RPV) long-acting (LA) stable switch participants receiving 4 weeks of oral lead-in (OLI) compared to those who start with injections (SWI). The Phase IIIb SOLAR study comparing efficacy and safety of the daily oral medication bictegravir/ emtricitabine/tenofovir alafenamide versus CAB+RPV LA therapy every 2 months allowed participants and healthcare providers (HCPs) the option of utilizing OLI prior to LA initiation vs. SWI. Factors influencing HCPs' future intentions regarding OLI vs. SWI are presented.

Methods

An online survey conducted among HCPs in 13 countries during SOLAR assessed reasons for utilizing an OLI prior to LA injections versus SWI. Eligible HCPs were involved in the participant-provider decision-making process. The survey included 21 questions, including 2 open-ended questions, and it was translated into five languages including English, French, Japanese, Spanish and German. Single variable and multivariable logistic regression analyses were used to identify factors, including geographic region, provider role, LA antiretroviral therapy experience, and participant-provider dynamics that influenced a provider's decision to use OLI prior to LA dosing. Regarding final model selection, items that were at least marginally significant ($p<0.10$) in the single variable logistic regression analyses were retained and included in the final multivariable logistic regression analysis.

Table 1. Sample characteristics of SOLAR study HCPs (n=111)

	N	%
Region		
Asia-Pacific	9	8.1
Northern Europe	11	9.9
Southern Europe	21	18.9
Continental Europe	30	27.0
North America	40	36.0
Provider role		
Other research staff	9	8.1
Nurse, Nurse Practitioner or Doctor of Nursing Practice	10	9.0
Physician	92	82.9
Prior experience with CAB LA + RPV LA		
Has participated in 1 or more CAB LA + RPV LA studies	38	34.2
First time participating in CAB LA + RPV LA study	73	65.8

Findings

111 HCPs participated in the survey; 32% reported a future preference to use OLI, whereas 53% reported a future preference for SWI. 15% reported having no preference for OLI or SWI. HCPs had greater odds of reporting future intentions for SWI if they were: from Continental Europe compared to North America (aOR: 3.83, $p<0.05$); from sites with a greater number of participants who initiated CAB+RPV LA without OLI (aOR: 1.56, $p<0.01$); and those who reported comfort with the medication safety profile (aOR: 6.39, $p<0.01$). HCPs who participated in CAB+RPV LA trials prior to SOLAR had decreased odds of reporting a preference for SWI compared to those with no prior CAB+RPV LA trial experience (aOR 0.11; $p<0.01$).

Table 2. Single variable & multivariable logistic regression analyses assessing provider future preference for SWI (n=93)

	OR	95% CI	aOR	95% CI
Region *(Reference: North America)*				
Northern Europe	9.333*	1.022 - 85.21	6.971	0.691 - 70.33
Continental Europe	2.167	0.712 - 6.589	3.833*	1.008 - 14.57
Southern Europe	1.333	0.440 - 4.041	0.273	0.0542 - 1.375
Asia-Pacific	1.067	0.242 - 4.702	1.613	0.192 - 13.58
Provider role: Physician	2.108	0.692 - 6.419	3.301	0.788 - 13.84
Prior experience with CAB+RPV LA	0.289**	0.118 - 0.711	0.112**	0.0266 - 0.473
Utilize scientific literature to assess need for OLI	1.941	0.793 - 4.751		
Number of patients who started on CAB+RPV LA without OLI	1.359*	1.024 - 1.804	1.564**	1.211 - 2.020
Participant's preferences in decision to use or not OLI is very influential	1.773	0.775 - 4.057		
Most important factor for decision not to use OLI: Participant request	1.839	0.763 - 4.430		
Most important factor for decision not to use OLI: Provider comfort with the safety data	2.850*	1.088 - 7.465	6.387**	1.781 - 22.91

All models controlled HCPs' geographical region and clinical role. CI based on robust standard errors. ** $p<0.01$, * $p<0.05$

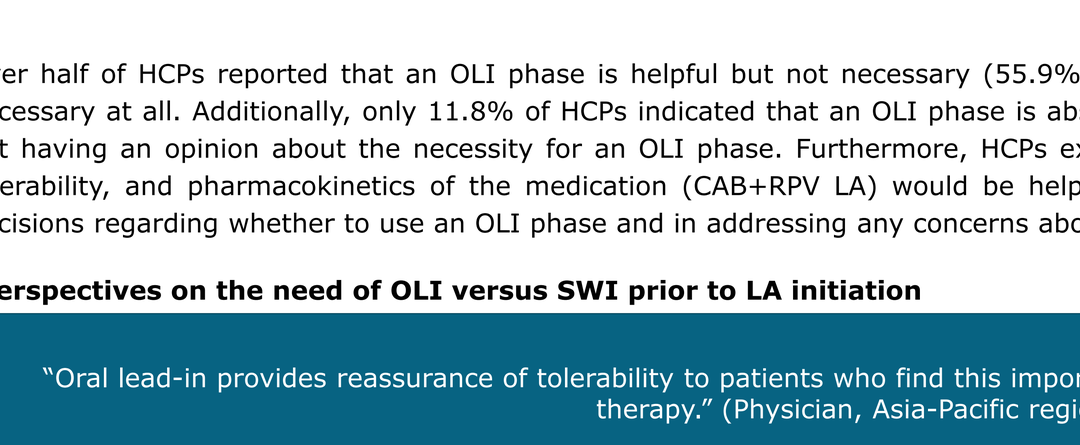
Over half of HCPs reported that an OLI phase is helpful but not necessary (55.9%) and 29.0% indicated that an OLI phase is not necessary at all. Additionally, only 11.8% of HCPs indicated that an OLI phase is absolutely necessary, while 3.2% of HCPs indicated not having an opinion about the necessity for an OLI phase. Furthermore, HCPs expressed that having "more data" on the safety, tolerability, and pharmacokinetics of the medication (CAB+RPV LA) would be helpful to providers in general when making future decisions regarding whether to use an OLI phase and in addressing any concerns about SWI.

Perspectives on the need of OLI versus SWI prior to LA initiation

"Oral lead-in provides reassurance of tolerability to patients who find this important in their decision making about switching therapy." (Physician, Asia-Pacific region)

"More data would address concerns about SWI [such as] duration of undesirable side effects after receiving injections [including] how long patients can expect adverse events to last should they opt for direct to injection and experience adverse effects." (Research staff, North American region)

Figure 1. HCP's future intentions to use OLI versus SWI when initiating participants on LA ART by region



Across regions, with the exception of North America, most HCPs report a greater preference for SWI versus the use of an OLI phase.

Conclusions

The SOLAR online survey indicated increased future intentions to SWI over OLI among HCPs initiating participants on CAB+RPV LA. A major factor leading HCPs to SWI was provider comfort with safety related data, reinforcing the role of continued training and education regarding the safety and tolerability of CAB+RPV LA using a SWI approach. In contrast, HCPs with prior clinical trial experience were less likely to proceed without OLI, which might be due to OLI being stipulated as part of prior trial protocols. Additional data supporting the safety of SWI, as well as provider education can help address OLI usage among HCPs.

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