Perspectives of healthcare providers on long-acting injectable cabotegravir and rilpivirine delivery in clinic and community settings in the UK: longitudinal survey findings from the ILANA study

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Key Takeaways:

- **Healthcare providers consider the delivery of CAB+RPV injections in both clinic and community sites to be acceptable, appropriate and feasible.**
- **Reported concerns about barriers to implementation differed between clinic and community healthcare providers, but largely related to site-related logistical concerns and patients' ability to manage the dosing schedule**
- **Introducing CAB+RPV treatment services into clinic or community settings requires careful planning and monitoring to ensure staffing, allocated time and resourcing is adequate to ensure the smooth running of the service.**

Background

- Delivery of long-acting injectable cabotegravir and rilpivirine (CAB+RPV-LA) in community settings may relieve capacity pressures on clinics, but there is limited evidence on implementation.
- We conducted surveys with healthcare providers (HCPs) in the clinic and community as part of the first study about delivery of CAB+RPV-LA in community settings in the United Kingdom.

Methods

- ILANA was a 12-month implementation study where patient participants received 2-monthly CAB+RPV-LA in clinic for months (M) 1-6, then in clinics or community settings for M6-12.
- Study sites were six large urban clinics in the United Kingdom, in London (n=4), Brighton (n=1) and Liverpool (n=1). Each site chose a community setting feasible for them, which included home visits (n=3), patient support organisations (n=2), and a community clinic (n=1).
- Longitudinal survey data from providers are reported from M0 (clinic HCPs only), M8 (community HCPs only) and M12 (both groups).
- We present descriptive analyses of endpoints: Feasibility of Intervention Measure (FIM), Acceptability of Intervention Measure (AIM), and Intervention Appropriateness Measure (IAM), and barriers to implementation.
- FIM, AIM and IAM were analysed as continuous scores and grouped as agreement/complete agreement (mean score >4) versus other responses.

Results

- Of 131 staff involved in delivering the study, 25 took part in the study surveys [Table 1])
- 18 (72%) were involved in the clinic sites (clinic HCPs) and 7 (28%) were involved in the community sites (community HCPs).
- 7 (28%) were doctors, 13 (52%) were nurses, and 4 (16%) were community nurse specialists.
- Overall, 68% administered CAB+RPV injections and 56% prescribed medications as part of their role.

Table 1. ILANA staff participant characteristics

Characteristics (n (%))	Clinic (N=18)	Community (N=7)	Overall (N=25)
Current role			
Doctor	7 (39)	0 (0)	7 (28)
Nurse	11 (61)	2 (29)	13 (52)
Community nurse specialist	0 (0)	4 (57)	4 (16)
Other	0 (0)	1 (14)	1 (4)
Administers CAB+RPV injections?			
Yes	11 (61)	6 (86)	17 (68)
No	7 (39)	1 (14)	8 (32)
Prescribes medications?			
Yes	11 (61)	3 (43)	14 (56)
No	7 (39)	4 (57)	11 (44)

Implementation outcomes

- Overall:
  - Mean acceptability, appropriateness and feasibility scores for delivering the injection in their treatment setting were high (>4) at the beginning of the study and remained so by the end of the study (Table 2).
  - Mean acceptability scores were highest at all time points compared to appropriateness and feasibility scores.
  - Mean feasibility scores were lowest at all time points, with the exception of M4 for clinic HCPs.
- Among clinic HCPs:
  - Mean acceptability, appropriateness and feasibility scores for delivering the injection in their treatment setting appeared to improve in a linear fashion over time.
- Among community HCPs:
  - Mean acceptability, appropriateness and feasibility scores for delivering the injection in their treatment setting were lower than scores reported by clinic HCP and decreased very slightly between M8 and M12.

Table 2. Acceptability (AIM), appropriateness (IAM) and feasibility (FIM) scores from clinic and community HCPs in relation to delivering CAB+RPV-LA in their treatment setting

	Clinic			Community	
	Baseline (N=18)	Month 4 (N=	Month 12 (N=14)	Month 8 (N=7)	Month 12 (N=7)
AIM >=4 (%)	16 (88.9)	15 (93.8)	14 (100.0)	6 (85.7)	5 (71.4)
AIM mean (SD)	4.44 (1.02)	4.63 (0.47)	4.82 (0.36)	4.71 (0.46)	4.50 (0.63)
IAM >=4 (%)	14 (77.8)	15 (93.8)	13 (92.9)	6 (85.7)	6 (85.7)
IAM mean (SD)	4.24 (1.04)	4.52 (0.49)	4.77 (0.51)	4.62 (0.49)	4.50 (0.55)
FIM >=4 (%)	11 (61.1)	13 (81.2)	13 (92.9)	4 (57.1)	3 (42.9)
FIM mean (SD)	4.04 (1.02)	4.53 (0.48)	4.61 (0.51)	4.38 (0.83)	4.21 (0.83)

Factors influencing implementation

- Most staff participants found the implementation blueprint useful, with 12/14 (66.7%) of clinic HCPs and 3/7 (42.9%) of community HCPs finding It useful/extremely useful at baseline (M0 for clinic HCPs, M8 for community HCPs) and 9/14 (64.3%) of clinic HCPs and 4/7 (57.1%) community HCPs finding it useful or extremely useful at M12.
- **Concerns about CAB+RPV-LA implementation**
  - Reported concerns about CAB+RPV-LA implementation differed between clinic and community HCPs.
  - Clinic HCPs (Figure 1):
    - At M0, there were six top concerns (all at 61.1%) regarding CAB+RPV implementation, three of which were patient-related (patients' ability to keep appointments, fear of needles, and soreness/pain from the injections) and three were site-related (having enough staff to administer injections, the number of exam rooms for injections, and staff resourcing for clinic flow).
    - At M12, these concerns remained the top concerns but the proportion of HCPs reporting them as a concern was lower.
  - Community HCPs (Figure 2):
    - At M8, the top concern (at 57.1%) was HCP-related (how prepared they felt to implement CAB+RPV-LA). At M12, this was no longer reported as a concern by any community HCPs.
    - At M12, the top concern (at 57.1%) was patient-related (risk of resistance for patients not adherent to injections). The second top concern (at 42.9%) was a site-related concern (time to administer the injection) – this has not been a top concern previously.

Figure 1. Concerns about CAB+RPV LA implementation evaluated by clinic HCPs

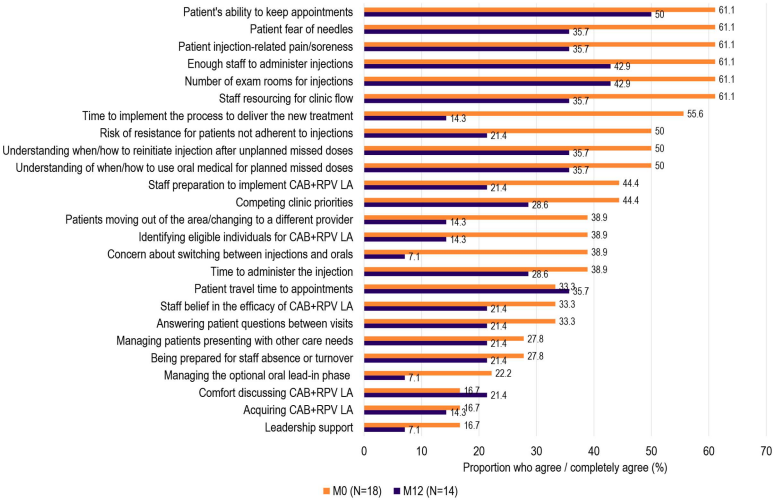
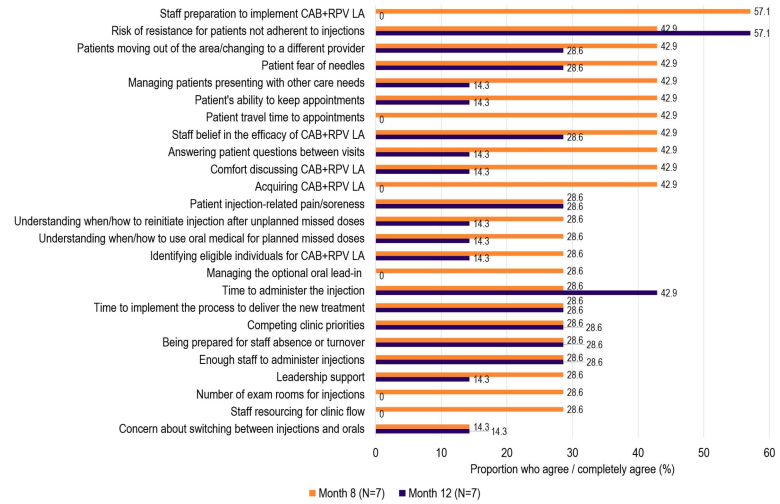


Figure 2. Concerns about CAB+RPV LA implementation evaluated by community HCPs



Discussion and Conclusions

- Delivering injections in clinics and community settings were considered highly feasible, acceptable and appropriate by clinic and community staff delivering the intervention, throughout the study.
- Lower feasibility scores (compared to acceptability and appropriateness scores) align with the implementation concerns reported by clinic and community HCPs – these largely related to concerns about patients' ability to adhere to the dosing schedule (and the consequences of this for resistance risk) and logistical issues such as having adequate staff, time and resourcing to manage the service smoothly.
- Community HCPs reported different concerns to clinic HCPs, reflecting differing needs dependent on treatment setting. While barriers such as insufficient rooms and clinic flow were not a concern for community HCPs, other issues arose including having sufficient time for appointments and possibly greater concerns about risk of resistance due to patients receiving treatment in the community generally having more complex needs.
- Encouragingly, all HCPs appeared less concerned about the efficacy of the treatment or its clinical management.
- Limitations include the small sample size, particularly for community HCPs, and missing data. Baseline measures are not directly comparable between clinic and community HCPs as they were recorded at different timepoints (M0 and M8).
- Services introducing CAB+RPV-LA treatment should undertake careful planning and monitoring to ensure staffing, allocated time and resourcing is adequate to facilitate the smooth running of the service.
- Further exploration of CAB+RPV delivery in additional community settings such as primary care or pharmacies may be beneficial.

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