Long acting (LA), injectable ARVs in clinical practice – Two UK case studies of compassionate access to LA cabotegravir and rilpivirine in young adults with perinatally acquired HIV-1

Daniella Chilton, Audrie Mukela, Asim Ali, Jessica Doctor, Ranjababu Kulasegaram

Guy's and St. Thomas' Hospital NHS Foundation Trust

Guy's and St Thomas'

NHS Foundation Trust

Background

- Poor adherence and pill fatigue are well described in young adults with perinatally acquired HIV (PAHIV)
- Stigma leads to negativity around pill taking 'the daily reminder'
- Poor adherence leads to immunosuppression and drug resistance
- LATTE-2¹, ATLAS² and FLAIR³ show that LA injectables can maintain viral suppression, with low discontinuation rates and high patient satisfaction

Compassionate access programme

- We applied to ViiV and Jansen through the compassionate access programme
- Pt who regularly attend clinic
- Poor adherence to tablets / liquids, pill fatigue, AIDS, risk of resistance
- Special population

Commencing LA injectables:

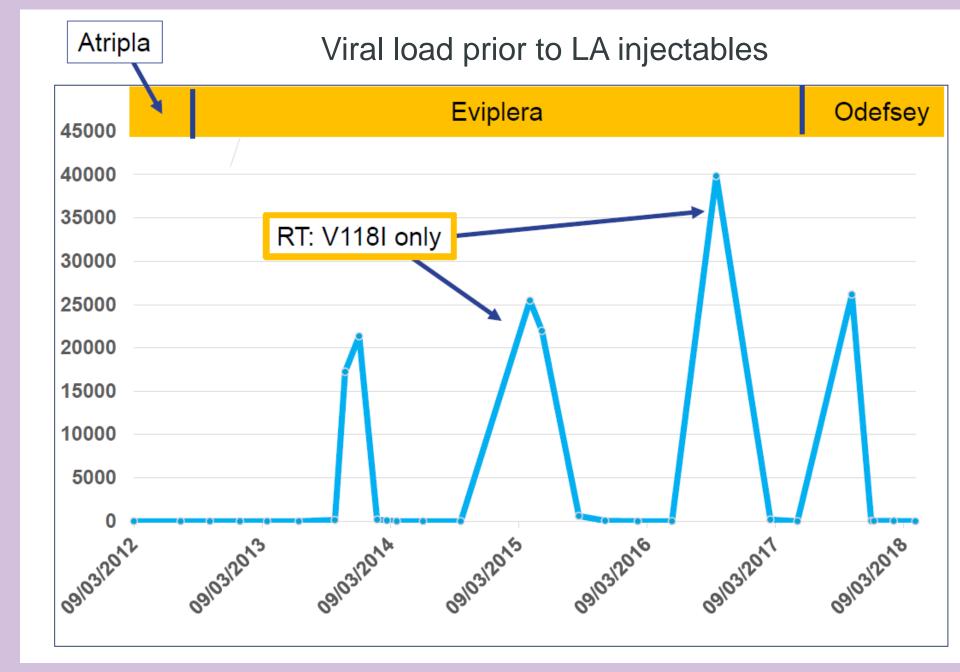
- Oral lead-in for 1 month
- 1st injections:
- Cabotegravir 600mg (3ml) IM, Rilpivirine 900mg (3ml) IM
- Subsequent injections:

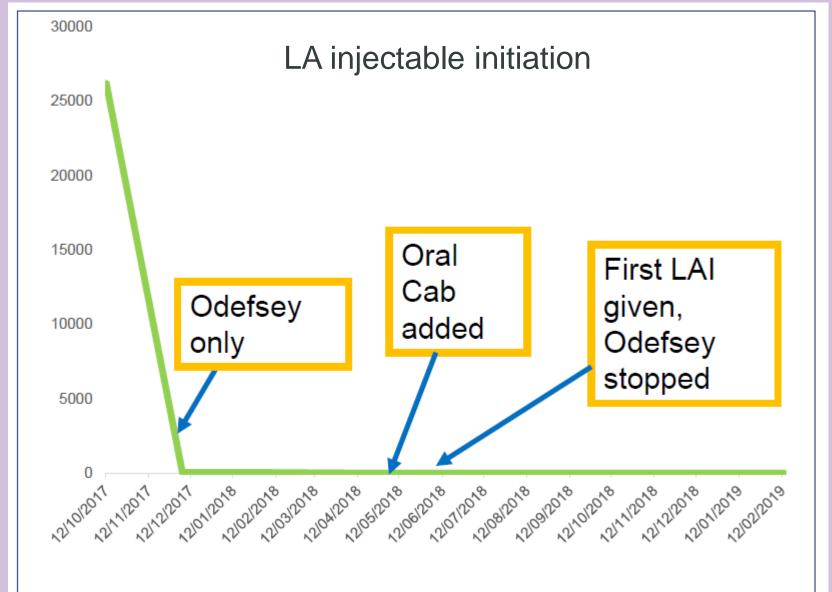
 Cabotegravir 400mg (2ml) IM,
 Rilpivirine 600mg (2ml) IM



Case Study 1

- 24 year old woman PAHIV
- No history of AIDS
- Nadir CD4 258 (17%), Current CD4 425 (33%)
- Pill fatigue treatment holidays
- VL re-suppression on Odefsey
- Risk of NNRTI resistance
- RT- V118I only
- Contraception Copper IUD





Patient factors

- Cabotegravir headache, anxiety initially
- Injection site reactions with nodule formation
- Monthly appt (may increase to Q8 weeks)
- What about going on holiday?

Satisfaction 100%

Clinic issues to circumvent

- Incorrect dosing given recalled pt to top-up
- Rilpivirine not kept at the right temperature could not use
- Missed appt recall pt and give LA injectables within 5 days timeline

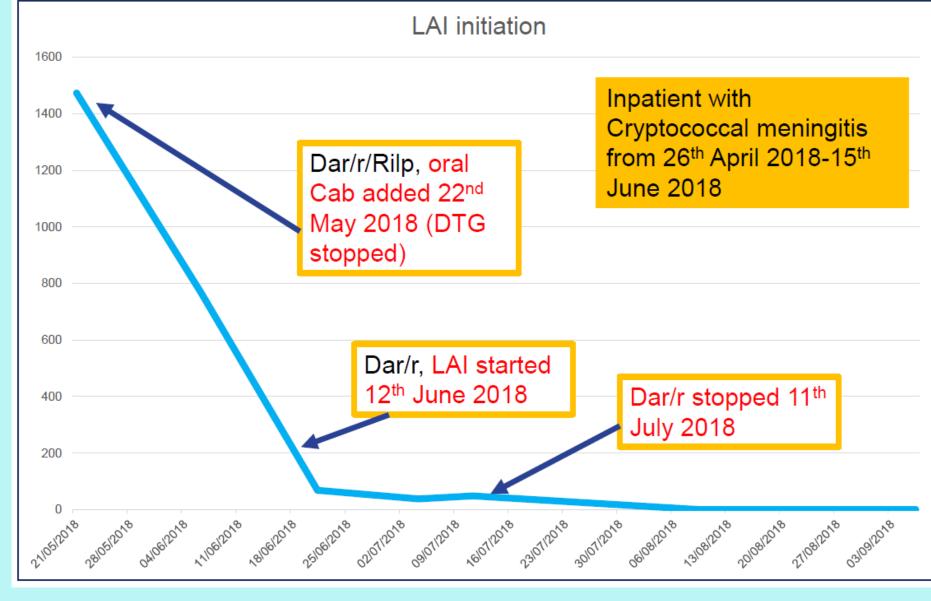


Scaling up

- Fridge space for rilpivirine
- Planning before giving injection, to warm to room temperature as more painful when cold
- Nurse time, increased number of appt
- Clinic room use

Case Study 2

- 23 year old man PAHIV
- Never had VL<20 before
- K103N, M184V previously failed Atripla
- Nadir CD4 43 (4%), May 2018
- Previous Admissions:
 - 1. Shingles 2016
 - 2. Pneumonia 2016
- 3. Cryptococcal meningitis and MAI April 2017
- 4. Cryptococcal meningitis recrudescence: Sept 2017, May 2018



- Non-adherence to oral fluconazole maintenance
- Cryptococcal IRIS Sept 2018
- 1. Inflammatory CSF
- 2. Raised ICP
- 3. Daily LP for 1 month; CSF VL <20
- Plasma viral load remains <20
- CD4 113 (13%) Feb 19
- Body weight increase by 20%

Conclusions

- This mode of treatment seems to be highly effective in this special population
- Despite previous NNRTI failure, many young people with PAHIV may still be sensitive to Rilpivirine
- Young people very satisfied, despite the drawbacks of injectable ART
- Could be life saving, or at least life changing for some young patients
- Careful considerations required for scale-up

References: 1. Lancet 2017 Sep 23;390(10101):1499-1510. doi: 10.1016/S0140-6736(17)31917-7. Epub2017 Jul 24. 2. SwindellsS et al. Long-acting cabotegravir+ rilpivirineas maintenance therapy: ATLAS week 48 results. CROI abstract 139 LB, 2019. 3. OrkinC et al. Long-acting cabotegravir+ rilpivirinefor HIV maintenance: FLAIR week 48 results. CROI abstract 140 LB, 2019