Third Joint Conference of the British HIV Association (BHIVA) with the British Association for Sexual Health and HIV (BASHH)

1–4 April 2014

Arena and Convention Centre · Liverpool
Dr Caroline Foster
Imperial College Healthcare NHS Trust, London
Recommendation for the off licence use of maraviroc in children with perinatally acquired HIV-1 infection (PaHIV) by a regional paediatric virtual clinic.

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CCR5 receptor antagonist maraviroc (MRV) is licenced in adults from 18+ years.

Safety and efficacy studies of MRV for 2-17 years olds are currently enrolling.

Published paediatric data lacking, off licence use is occurring.

PaHIV: 80% 12yr old and 50% 18yr olds R5-using virus (HICCUP CROI 2014 P899)
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*** food/administration considerations

Imperial College Healthcare NHS Trust - Paediatric HIV Drug Dosing Chart 2012
Methods

- Case note review of MRV recommendation by a regional paediatric virtual clinic aged <18 years
  
  *(Le Doare et al BHIVA P50)*

- Reason for referral
- Demographics, ART exposure/ toxicity,
- Resistance mutations
- Regimen recommended
- Safety and efficacy post switch
Results: Referral data

- 17 children: 76% male,
- median age 14 years (range 12-17)
- median weight 43kg (range 29-72)
- All prior ART exposure
- Resistance: 14 dual, 3 triple class
- median CD4 count 690 cells/ul (range 176-1400)
- 5 (29%) were suppressed: median VL 140 copies/ml (IQR <50 – 4670)
Results – referral patterns

- Referred from: PVC centre (8), network centres (9)
- Referred for:
  - Virological failure: 8
  - ART Toxicity: 5
  - VF and ART toxicity: 3
  - OD simplification: 1

ART toxicity:
- 4 hyperlipidaemia (Xiang et al BHIVA P131)
- 3 tenofovir associated nephrotoxicity (Lim et al BHIVA P133)
All were predicted to have CCR5-using virus on C2V3 sequencing from plasma RNA (12) or proviral DNA (5) within 3/12 of switch

All received 300mg MRV OD with either darunavir/r (14) or atazanavir/r (3) and optimised backbone

2 also received etravirine and 2 raltegravir
Results: Follow up (n=12)

- median time on MRV 86 weeks (range 12-158)
- 9/12 (75%) had a VL <50 c/ml
- 2 had low level viraemia 50-400 c/ml
- 1 VF at 96 weeks on Truvada, MRV and DRV/r.
  - Tropism: CXCR4
  - Switched to RAL-based ART
Results - Toxicity

- 1 self limiting rash on MRV, DRV/r and lamivudine
- No side effects resulted in MRV discontinuation
- No documented hypotension
Conclusions

- Extensive ART exposure and resistance limits OD ART options for adolescents with PaHIV
- MRV was safe and well tolerated in this small ART experienced cohort
- Three quarters remain virally suppressed at median of 86 weeks
- Convenient once daily dosing with boosted PIs
The adolescents and their parents/carers

Shared care centres: Liverpool, Manchester, Nottingham, Oxford, Wexham, Derby

Slides: Alasdair Bamford, Kirsty Le Doare

Paediatric Virtual Clinic: Nicola Mackie, Steve Kaye, Sam Walters, Hermione Lyall, Gareth Tudor-Williams, Deepak Patel, Diane Melvin, Paula Seery, Sarah Gould, Clare Monrose and Toyin Popoola
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