Early clinical experience of Dolutegravir in a HIV cohort in Northern Ireland

Dr SEJ Todd, Mr P Rafferty, Prof WW Dinsmore, Dr C Donnelly, Dr SP Quah, Dr EJ McCarty, Dr CR Emerson

Belfast Health and Social Care Trust

Royal Victoria Hospital, Belfast, Northern Ireland

Introduction

Dolutegravir is the third HIV integrase inhibitor licensed for use in the UK and available for prescription in Northern Ireland since July 2014. We describe the experience of this new drug within our HIV cohort in a large teaching hospital.

Methods

All patients commenced on Dolutegravir as '**naïve'** or '**treatment experienced'** were identified from pharmacy records. Data collected included demographics, HIV parameters, serological response, clinical and patient reported outcomes.

Results

Of 750 patients on anti-retroviral treatment 68 were commenced on Dolutegravir. These patients comprised:

- *49/68 (72%) male*
- *58 (85%) White British, 7 (10%) White European & 3 (5%) Black African*
- *28 (41%) heterosexual & 40 (59%) MSM*
- *48 (71%) patients switched from another regimen or 'Switchers'*
- *20 (29%) treatment naïve or 'New starters'*

Analysis of viral load response:

'New starters': N=20 Median VL of 74,972 copies/mL ($35,269_{Q25}$ – $185,814_{Q75}$) fell to median VL 'Below Limits of Quantification' (BLQ) (BLQ_{Q25} - 178_{Q75}) at 4 weeks following initiation. ***Of these 9 (45%) were virally undetectable at 4 weeks (Fig.1):***

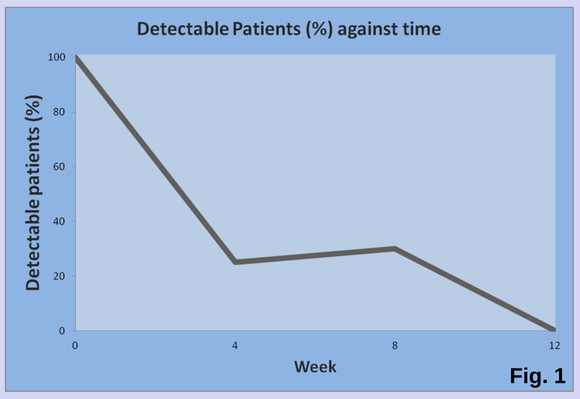


Fig. 1

'Switchers': N = 48 Of the 48, 28 (58%) were switched due to side-effects of their current regimen, 21 (44%) for reducing pill burden & 3 (6%) due to drug interactions

'***VL suppressed at switch***': 1 (3%) was detectable at 1392 copies/mL after 4 weeks.

'VL detectable at switch': Median VL 972, (161_{Q25} – $24,929_{Q75}$). 8 (57%) were undetectable after 4 weeks. Median VL reduced to 45.5 (BLQ_{Q25} – 337_{Q75}) after 4 weeks.

Analysis of CD4

'New starters': Mean CD4 was 419 (21%) prior to starting treatment and 553 (26%) at first four week check ***(Fig. 2):***

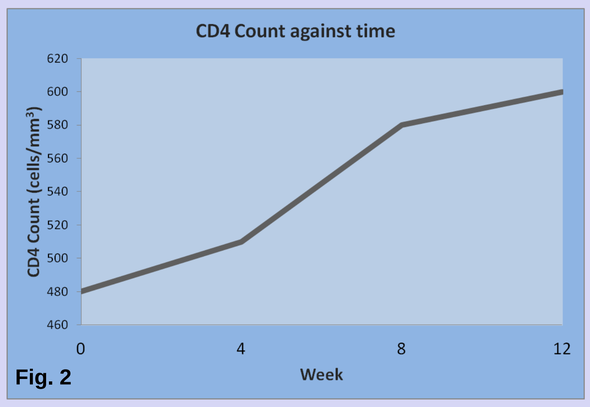


Fig. 2

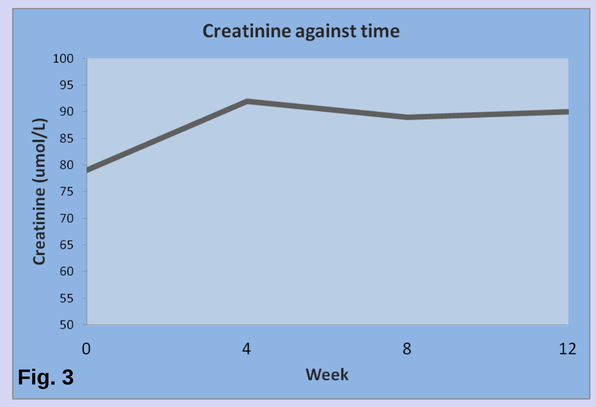


Fig. 3

'Switchers': Mean CD4 was 505 (CD4 27%) prior to initiation and 542 (C4 28%) at first four week check.

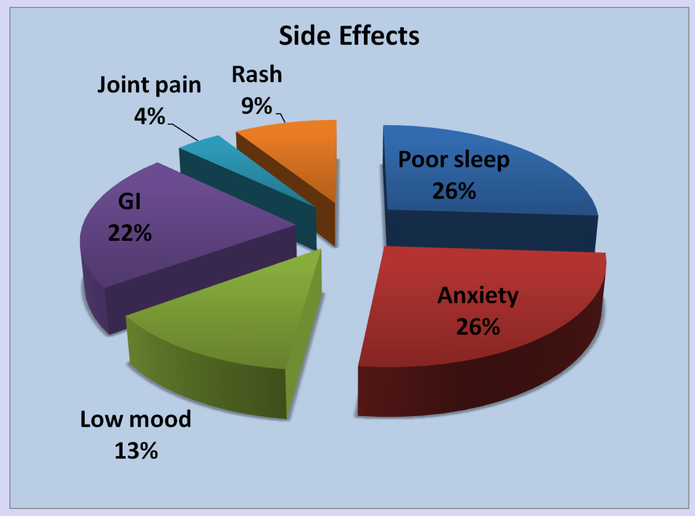
Creatinine

In 'naïve' and 'switched' patients mean creatinine 79 µmol/L increased to 92µmol/L at first four week check ***(Fig. 3)***

Side effects

- *22/68 (32%) reported side effects*
- *11/68 (16%) reporting difficulty with low mood, anxiety, sleep disturbance or irritability.* ***6/68 (9%) discontinued due to intolerable side effects****. **
- *Of those that discontinued treatment (6/68), all (6/6) reported low mood and 3/6 (50%) anxiety.*
- *4/6 (67%) symptoms resolved / improved 4-6 weeks following withdrawal treatment*

Side effects have been reported using Yellow Card Scheme to Medicines & Healthcare products Regulatory Agency (MDRA)



Conclusions

Early results indicate that Dolutegravir is a useful drug in 'naïve' or 'switch' patients**. It has potential to effectively suppress viral load within the first 4 weeks of treatment and thus reduce infectiousness**. Within the cohort reviewed it was well tolerated but **side effects such as mood, anxiety and sleep disturbance was high with 9% of patients discontinuing treatment**.

Recommendations

- **Cautious use in patients with a history of depression / anxiety**
- **Close follow-up for side effects (low mood, anxiety, sleep disturbance or irritability)**
- **Educating patients on side-effects to watch out for**
- **Reporting of significant side effects using yellow Card Scheme to MDRA**

Acknowledgements

I would like to thank the Consultants, GUM staff & pharmacy for their help, support & presentation of this data