**Introduction**

- Co-morbidities including osteoporosis, chronic kidney disease (CKD) and cardiovascular disease are an increasing concern in the elderly population of people living with HIV (PLWH).
- The introduction of tenofovir alafenamide fumarate-emtricitabine (FTC-TAF) fixed dose combination provides an alternative nucleoside reverse transcriptase inhibitor (NRTI) backbone for PLWH with multiple co-morbidities. (1,2)
- We assessed the impact on renal markers, lipid profile and bone mineral density in a cohort of PLWH aged over 60 attending clinic, following the introduction of tenofovir alafenamide NHS commissioning guidelines in July 2016. (3)

**Methods**

- Patients were identified using a database of PLWH aged over 60 regularly attending one HIV clinic in London in September 2017.
- Notes were reviewed and results including anti-retroviral history, estimated glomerular filtration rate (eGFR) using MDRD4 equation adjusted for ethnicity, urinary protein creatinine ratio (uPCR), lipid profile and bone mineral density (BMD) were collected.
- Analysis was stratified into two groups:
  - Patients who switched from any antiretroviral regime to FTC-TAF based regimes with baseline results taken closest to time of FTC-TAF switch and current results from January 2019
  - Patients on non-FTC-TAF antiretroviral regimes, with baseline results taken from September 2017 to current results in January 2019.
- All analysis was performed using SPSS and Microsoft Excel

**Results**

![Graph showing change in eGFR over time](image)

- 300 patients identified
- 21 patients excluded: 7 RIF and 14 transferred care
- 279 patients were included for analysis. Baseline characteristics were similar in each group. Median duration of follow up was 10 months for the FTC-TAF arm and 12 months for the comparator group.

Mean change in eGFR from baseline was higher following switch to FTC-TAF

**Conclusion**

- In PLWH aged over 60 switching to FTC-TAF based regimen resulted in a statistically significant improvement in eGFR which resulted in a significant improvement in CKD stage in our cohort of elderly patients. This data from real world clinical practice appears to mirror that of previous studies.
- eGFR appeared to trend back towards baseline overtime. This could reflect the trend of decline in renal function over time.
- Lipid profile was unchanged over the short follow-up period, and longer follow up is required to assess BMD changes over time.
- Long term follow up is required to assess impact of FTC-TAF but may be beneficial in slowing rate of renal function decline in high-risk groups such as older PLWH.

**References:**

2. Laura N Wail, Julia Steinrücken, Andri Rauch et al. Tenofovir Alafenamide in Multimorbidity HIV-infected Patients With Prior Tenofovir-Associated Renal Toxicity Open Forum Infectious Diseases, Volume 5, Issue 11, November 2018