The impact of deferred monitoring in people living with HIV during the COVID-19 pandemic

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Background

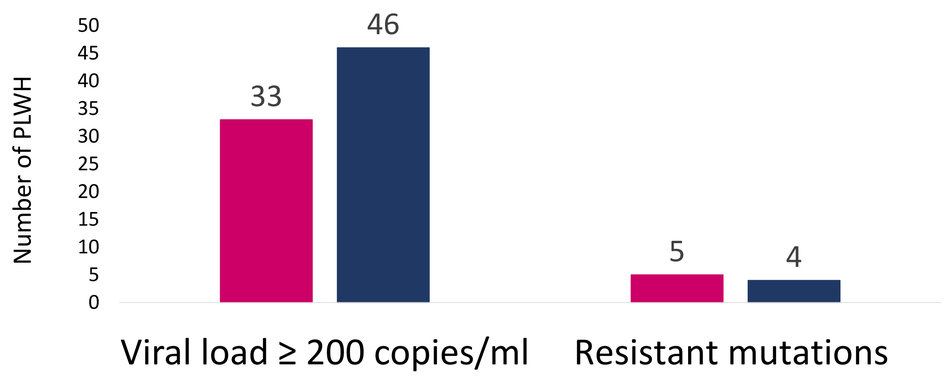
- Deferred routine monitoring during COVID-19 gave us an opportunity to evaluate whether all people living with HIV (PLWH) need to be seen every 6 months for monitoring.
- We aim to determine the number of PLWH with new abnormal renal and liver function tests, detectable viral loads (defined as VL>200copies/ml) and resistance before and after the period of deferred monitoring.

Method

- Retrospective observational cohort study was conducted using electronic medical records.
- Target population: All PLWH who had deferred monitoring during UK COVID lockdown (Mar- Jul 20).
- Data was captured on return to clinic after deferred monitoring and compared to their bloods taken in the previous year, where routine monitoring was done (Mar- Jul 19).

Results

Figure 1: Virological outcomes



- 1618 PLWH identified as having their routine monitoring deferred. 46 people developed detectable viral loads, of which 85% had a history of non-adherence.
- 4 PLWH developed new resistant mutations (table 1), the only person not able re-suppress was due them stopping taking their treatment.
- Deferred monitoring did not result in a significant difference in detectable viral loads, resistance, renal or liver abnormalities.

Figure 2: Raised ALT results

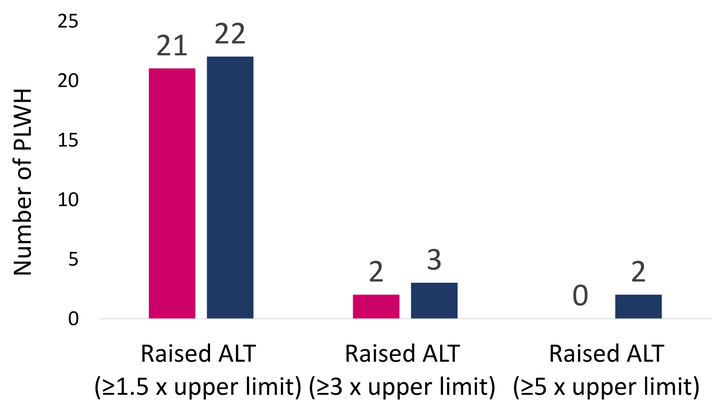


Figure 3: Renal function change from baseline

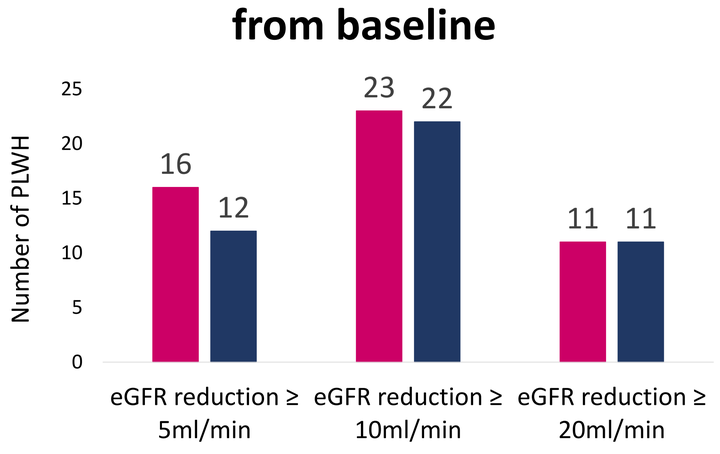


Figure 4: UPCR results

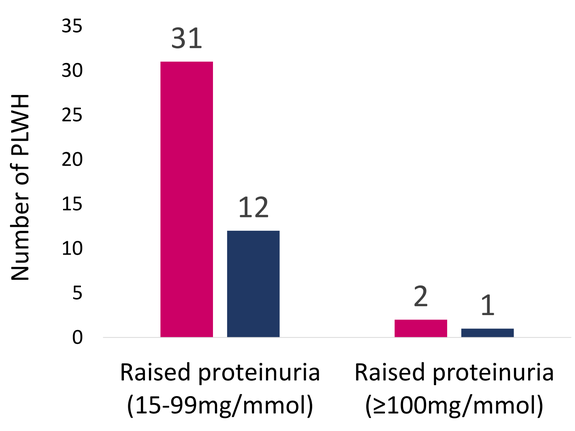


Table 1: New resistant mutations acquired after deferred monitoring

PLWH	Previous mutations	Post-lockdown mutations	Pre-lockdown viral load	Post-lockdown viral loads	Re-suppressed to VL<200copies/ml	Pre-lockdown ART	Post-lockdown ART
1	Wild type	**F77L** NRTI	51	199, 343, 298, 109, 93	Y	TAF/ FTC/ RPV →	TAF/ FTC/ DRV/ CCS
2	M184V, D67N	**H221Y** NNRTI	108	366, 505, 780, <20, <20	Y	TAF/ FTC/ DRV/ CCS + DTG →	TAF/ FTC/ BIC + DRV/ CCS
3	Not known	**V179E** NNRTI	<20	88863, 238838, 267657	N	ABC/ 3TC/ DTG	Stopped ART
4	Wild type	**M184V**	45	733, 55, <20, <20	Y	ABC/ 3TC + DRV/r →	ABC/ 3TC/ DTG

Conclusion

- Concerns are missed opportunities to identify abnormal pathology results (renal + LFT), virological failure, transmission and resistance however in this analysis we did not see any difference with deferred monitoring.
- ART blocking renal transporters were not excluded therefore the renal results may be overestimated. The findings are also limited by not including the impact on mental health or other routine tests e.g. lipids and sexual health screening.
- Routine monitoring could be extended to annually as an option in selected groups of PLWH with a history of good adherence through risk stratification.