

Diagnostic Stewardship in People Living with HIV

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Background

T lymphocyte subsets are an important test in the initial assessment and treatment response of people living with HIV (PLWH). The British HIV Association (BHIVA) Guidelines recommend that for patients newly diagnosed with HIV whose CD4 is >350 cells/mm³ further CD4 testing should only be done if HIV related symptoms develop. Similarly they recommend that patients with a CD4 of >200 cells/mm³ who remain virally suppressed for greater than one year do not require further CD4 testing. This audit examines our compliance with the recommendations across PLWH who attend the St. James' Hospital HIV service.

Methods

Pharmacy and clinical records were reviewed for all patients who newly presented for HIV management between 1st April 2021 and 1st April 2022. Demographic and clinical data were collected; standard descriptive statistics was used to summarise the findings. Only new patients who had at least 12 months of follow-up in SJH were included in the initial review.

Results

Between April 2021 and April 2022 112 patients attended SJH for HIV care for the first time. Of these 95 (84.8%) were male. The median age was 35 years (range 19-68). 21/112 (18.8%) had an initial CD4 below 200 at presentation, 16/112 (14.3%) had an initial CD4 of 200-350, and 75/112 (67%) had an initial CD4 count greater than 350. 60/112 (53.6%) had a detectable HIV viral load (VL) at first presentation. Of those with a detectable VL 40/60 (66.7%) achieved an undetectable VL within 2 months, and 56/60 (93.3%) achieved an undetectable VL within 6 months.

Of 16 patients with CD4 200-350 at presentation, 3/16 (18.8%) were virally suppressed and the remaining 13 achieved viral suppression within 4 months of treatment initiation. Despite this the patients had a mean of 3.9 (Range 2-5) T-lymphocyte subset tests within the first 12 months of treatment in SJH.

Of 75 patients with CD4 >350 at presentation, 47/75 (62.7%) were virally suppressed and the remaining 28 achieved viral suppression within 9 months of treatment initiation (median <1 month). Despite this the patients had a mean of 2.5 (Range 1-5) T-lymphocyte subset tests within the first 12 months of treatment in SJH.

Conclusion

T-lymphocyte subset surveillance testing may be over utilised in PLWH in our centre. Closer compliance with BHIVA guidelines could generate significant cost savings. For the next steps we intend on developing a quality improvement project to reduce unnecessary T-lymphocyte subset testing in our clinic.

References

1. Waters L, Winston A, Reeves I, et al. BHIVA guidelines on antiretroviral treatment for adults living with HIV-1 2022. HIV Med. 2022 Dec;23 Suppl 5:3-115. PMID: 36504313.