Should we stop testing CD4 counts in HIV-infected individuals with viral suppression and CD4≥350?

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• Utility of CD4 monitoring in HIV-infected individuals with CD4 count ≥350 cells/mm³ & suppressed viral load (VL) is debatable

• BHIVA guidelines: CD4 monitoring every 4-6 months in such patients¹

• Current economical situation & lack of clinical utility, recent calls for STOPPING CD4 testing in these individuals altogether²-⁵

• MMC policy (2008): CD4 monitoring annually for patients with a CD4≥350 cells/mm³ AND an undetectable HIV viral load

• Following this change, we audited CD4 monitoring and its clinical utility over the subsequent three year follow-up period

4. Phillips A, Youle M, Lampe F et al. CD4 cell count changes in individuals with counts above 500 cells/mm³ and viral loads below 50 copies/mL on antiretroviral therapy. AIDS. 2002;16(7):1073–1075
Methods

• Patient population:
  • HIV+ patients attending the Mortimer Market Centre
  • First 300 consecutive HIV+ patients attending from 1st Oct 2009
  • Stable patients defined as having all of the following:
    • Viral load undetectable:
      • at least 12 months preceding baseline visit AND
      • During follow-up
    • CD4≥350 cells/mm$^3$ at baseline visit

• Follow-up
  • All patients attending 1st Oct 2009 - 31st Dec 2012 where viral suppression was maintained or until virological rebound

• Outcomes
  • Frequency of CD4 monitoring
  • Proportion of stable patients with CD4≥350 cells/mm$^3$
Results

• 300 consecutive attenders: 141 (47%) stable HIV+ patients
  • Male 82%
  • Age (years) 44 (39-49)
  • Median follow-up (years) 2.5 (2.1-2.8)
  • Median baseline CD4 count (range) 620 (480 - 770)
  • Median CD4 count at end of follow-up (range) 670 (550 - 850)
• CD4 counts were measured at a median frequency of once every 8.4 months (IQR 6.4-9.7)
• 128 (91%) maintained CD4 ≥ 350 cells/mm³
• 13 (9%) had CD4 < 350 cells/mm³ accounting for 3.2% of the total 319 person-years of follow-up
• Only 5 with sustained falls below 350 cells/mm³
  • 3 had CD4 < 200 cells/mm³, all predictable (steroids, chemotherapy, HCV treatment) (2 others fluctuated around 350)
• In no patient did change in CD4 lead to change in management
Conclusions

• Despite our policy of annual monitoring, frequency of CD4 measurement was more frequent (median 8.4 months)

• Reduced cost of CD4 testing by 54% compared to a strategy of testing twice per year as per monitoring guidelines¹

• Significant CD4 declines are predictable by clinical scenarios which are well recognised to lower CD4 count

• We recommend stopping routine CD4 monitoring in stable individuals as any suggested policy regarding frequency of testing is likely to lead to more frequent monitoring in the clinic setting