

IMPACT OF LATE HIV DIAGNOSIS ON COSTS OF CARE IN A PUBLIC HEALTHCARE SETTING

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Background:

Despite increased access to HIV testing and treatment in Australia, presentations with advanced disease still occur, placing a significant burden on the health system. Previously, modelling studies have informed cost estimates in Australia, but not used the actual cost incurred. We aimed to quantify the actual costs of care for adults newly-diagnosed with HIV in the first year after diagnosis in a specialised HIV health service. Furthermore, we sought to identify demographic and clinical factors predicting increased costs of care to inform future interventions to improve health and economic outcomes.

Methods:

We performed a retrospective evaluation of all new HIV diagnoses in adults between 2016 and 2020 managed at a tertiary health service specialising in HIV care. We included all active patients and extracted the following data: demographics (age, gender, birthplace, first-language), HIV parameters (viral load [VL], CD4 cell count), antiretroviral therapy start date, opportunistic illness history, and healthcare costs (inpatient, outpatient, emergency) 12 months after diagnosis. Multivariable modelling was used to identify factors associated with increased costs.

Results:

We identified 147 people; median age 38 years, 90% male, median CD4 count at diagnosis 338 cells/ μ L with median initial cost of care AUD \$22,929 (IQR \$11,902–\$39,175). Advanced HIV diagnosis (CD4 <200 cells/ μ L; n=52) cost more than double an early HIV diagnosis (CD4 >350 cells/ μ L; n=69) [median \$46,406 vs \$20,274; p<0.001]. In univariate analysis, older age, higher VL, low CD4 count and VL >200 copies/mL after 6 months were associated with increased costs. In multivariate analysis, older age (p=0.001) and CD4 count <200 cells/ μ L (p=0.001) were the only factors predicting increased cost.

Conclusion:

Older age and low CD4 count independently predicted increased costs in the first year after HIV diagnosis. Prioritising HIV testing strategies to allow earlier diagnosis of HIV would significantly reduce the financial burden of HIV care.

Disclosure of Interest Statement:

Conflicts of Interest and Source of Funding: none were declared.