

Retained and Poorly Retained Patients with HIV had Similar Total Costs in the First Two Years of Diagnosis

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Abstract

Background: Multiple studies have shown that patients with HIV that are retained in care have improved clinical outcomes and survival (1,2); however, improved retention may result in increased costs for physician visits and diagnostic tests. The purpose of this study is to compare the differences in costs among patients who are retained in care versus those who are poorly retained in care.

Methods: A retrospective cohort study was conducted using the medical records of patients who had a positive rapid HIV test in the emergency department in 2008 and were linked to care. Inpatient, outpatient, and emergency costs as well as number of visits were collected for the first two years after initial HIV diagnosis. The Kruskal-Wallis test (SPSS) was used for analysis. Retained in care was defined as two visits with an HIV provider divided by 90 days each year for two years.

Results: Fifty six patients met the inclusion criteria; they were predominantly uninsured (73%) and African-American (89%). The median total costs per patient for the retained patients over two years was \$45,723 (range \$14,349 to \$305,380) and for poorly retained patients \$24,491 (range \$2,685 to \$137,489)(p=.11), driven predominantly by outpatient costs, median \$26,600 for retained patients and \$8,478 for poorly retained patients(p<.00). Inpatient and emergency department costs for retained versus poorly retained patients were similar, \$8,100 versus \$10,311(p=.59) and \$1,945 versus \$2,484(p=.29), respectively. The median number of outpatient visits over the first two years was 30 for retained patients and 7 for poorly retained patients; inpatient days 2 versus 3; emergency room visits 2 versus 2.

Conclusion: Patients with HIV have high healthcare costs, but retained patients, who are known to have better health outcomes and decreased mortality, did not statistically cost more than patients who were poorly retained, with the exception of outpatient costs, which was expected.

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Results

Table 1: Demographics	N = (56)	Percent
Age- mean (range)	41 (19-61)	
Male	30	54%
Race		
African-American	50	89%
Caucasian	4	7%
Insurance at Diagnosis		
Any insurance including Medicaid	15	27%
Uninsured	41	73%
CD4 count < 200 at time of Rapid Test	24	43%
Mean CD4 Count (95% CI)	265 (204-325)	

Table 2: Median Costs in Dollars over 2 years For Retained versus Poorly Retained Patients

	Retained	Poorly Retained	P Value
Inpatient Costs (range)	\$8,100 (0 to 252,167)	\$10,311 (0 to 128,213)	0.59
Outpatient Costs (range)	\$26,600 (12,411 to 72,291)	\$8,478 (61 to 32,543)	<.00
Emergency Room Costs (range)	\$1,945 (0 to 17,945)	\$2,484 (249 to 21,453)	0.29
Total Costs (range)	\$45,723 (14,349 to 305,380)	\$24,491 (2,685 to 137,489)	0.11

Table 3: Median Number of Visits	Retained	Poorly Retained
Inpatient Days (range)	2 (0-65)	3 (0-30)
Outpatient Visits (range)	30 (9-166)	7 (1-55)
Emergency Room Visits (range)	2 (0-10)	2 (1-20)

Conclusions

- Patient with HIV had high healthcare costs.
- Both retained and poorly retained patients had similar inpatient and emergency room costs, which may be unavoidable costs regardless of retention status.
- Retained patients had statistically higher outpatient costs, but overall costs were not significantly different.
- Retained patients averaged only \$10,616 more per year than poorly retained patients and have been shown to have better clinical outcomes(1), improved survival(2), and a decrease in the risky behaviors associated with HIV transmission(3).

References

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