

# rising case load of adult HIV-related disease on a hospital in Nairobi.

Gilks, C.F; Floyd, K; Otieno, L.S; Adam, A.M; Bhatt, S.M; Warrell, D.A

## Abstract:

Increasing numbers of HIV-infected adults in Africa need hospital care. It remains unclear what impact this has on health care services or on how hospitals respond. The aim of this study was to describe the effects of a rising case load of adult HIV-related disease by comparing results from a prospective cross-sectional study of acute adult medical admissions to a government hospital in Nairobi conducted in 1992 with results from a previous study done in 1988 and 1989 in the same hospital, using the same study design and protocol. Data on age, gender, number admitted, length of stay, HIV status, clinical AIDS, final diagnosis, case mix, and outcome were compared. In 1992, 374 consecutive patients were admitted in 15 24-hour periods (24.9 patients/period) compared with the 1988 to 1989 study, which enrolled 506 patients in 22 24-hour periods (23.0 patients/period). Patients' age, gender, and length of hospital stay were similar in both studies. In 1992, 39% of patients were HIV-positive compared with 19% in 1988 to 1989 ( $p < 10^{-6}$ ); whereas seropositive admissions rose 123% between the two periods ( $p < .0001$ ), HIV-negative admissions declined 18% ( $p < .05$ ). Clinical surveillance for AIDS consistently identified  $<40\%$  of HIV-positive patients. Irrespective of HIV status, tuberculosis and pneumococcal pneumonia were the leading diagnoses in both surveys. No change was found in the diagnoses recorded for HIV-positive patients, but in HIV-negative patients, reductions were significant in the case mix ( $p < .00001$ ) and range of diagnoses ( $p < .001$ ) seen in 1992. Outcome remained unchanged for HIV-positive patients with approximately 35% mortality in both surveys. Outcome significantly worsened, in relative and absolute terms, for HIV-negative patients: in 1992, mortality was 23%, compared with 13.9% in 1988 to 1989 ( $p < .005$ ), with 3.5 deaths per 24-hour period in 1992 compared with 2.6 deaths per 24-hour period in 1988 to 1989 ( $p < .05$ , one-tailed). These data suggest that increasing selection for admission is taking place as demand for care increases because of HIV/AIDS. This process appears to favor HIV-positive patients at the expense of HIV-negative patients who seem to be crowded out and, once admitted, experience higher mortality rates. The true social costs of the HIV epidemic are underestimated by not including the effects on HIV-negative people. PIP: The impact of the escalating demand for HIV/AIDS-related care on hospital services in Nairobi, Kenya, was investigated in two prospective cross-sectional studies conducted at Kenyatta National Hospital. Data on age, gender, number of admissions, length of stay, HIV status, clinical AIDS, final diagnosis, case mix, and outcome were compared in a 1988-89 study that enrolled 506 consecutive patients in a total of 22 24-hour periods and in a 1992 study of 374 patients admitted in 15 24-hour periods. 18.7% of hospital patients in 1988-89 were HIV-positive compared with 38.5% in 1992, with a concomitant decline of 18% in the number of HIV-negative admissions. Clinical surveillance for AIDS consistently identified less than 40% of HIV-positive patients. Tuberculosis and pneumococcal pneumonia were the leading diagnoses in both surveys among HIV-positive and HIV-negative



*Your complimentary  
use period has ended.  
Thank you for using  
PDF Complete.*

[Click Here to upgrade to  
Unlimited Pages and Expanded Features](#)

positive patients did not change over time; however, as a significant narrowing in the range of diagnoses seen. Mortality among HIV-positive patients remained constant at 35% in both surveys. Among HIV-negative patients, mortality increased from 13.9% in 1988-89 to 23% in 1992 (2.6 and 3.5 deaths per 24-hour period, respectively). These findings suggest that increasing demand for hospital care by HIV-positive patients has been accompanied by deteriorating conditions for HIV-negative patients, especially an admissions selection process that favors HIV/AIDS patients. Recommended to address the worsening crisis in health care delivery are general guidelines on admission criteria that neither crowd out HIV-negative patients nor discriminate against those with HIV/AIDS.