

ABSTRACT

A Comparison of two systems for the monitoring and control of blood glucose of diabetic residents at the Golden Age Home, Kingston, Jamaica.

Kenneth C. James

Comparative analysis of alternative systems of delivery of health care, in the prevailing environment of limited health budgets is of paramount importance. This study involved diabetic residents (n=32) from an elderly care home in Jamaica, and essentially analysed the cost-effectiveness of the use of an in-house glucometer in the monitoring of blood glucose in the institutionalized diabetic vis-a-vis that of monitoring by transportation of residents to public hospital laboratories.

The cost-effectiveness of the two systems as reflected by the attendant costs and the corresponding increase in quality adjusted life-years was examined.

The use of the in-house glucometer resulted in a greater proportion of diabetics being controlled and at lower costs. The difference in mean glycosylated haemoglobin levels of diabetic residents for each system was statistically significant ($p < 0.001$).

There was also an established trend for elevated blood glucose to be reduced to control levels using the in-house glucometer ($p < 0.001$). Cost-effectiveness ratios were compared and the system using the glucometer was in this respect advantageous.

It is hoped that due consideration will now be given to the use of the in-house glucometer as a cost-effective alternative in the delivery of care to the elderly diabetics at this institution. More importantly, decision-makers nationally, should consider this option as they grapple with the problems of institutionalized elderly diabetics in the primary care setting.