On-site, rapid HIV testing with same-day results and counseling
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Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

Health technology
A Single Use Diagnostic System (SUDS) HIV-1 rapid test with on-site counselling (counselling associated with same-day test results) was compared to a standard counselling and testing protocol (pre- and post-test counselling with 2-week test results) in a testing procedure designed for individuals attending an anonymous testing clinic (ATC) or a sexually transmitted disease (STD) clinic for HIV testing.

Type of intervention
Diagnosis.

Economic study type
Cost-effectiveness analysis.

Study population
Individuals attending an ATC or STD clinic for HIV testing and counsellors providing counselling services in the STD clinic and the ATC.

Setting
A specialised clinic. The economic study was carried out in Atlanta, the USA.

Dates to which data relate
The effectiveness and resource use data for on-site rapid HIV testing and counselling were collected between July and October 1993. The effectiveness and resource use data for standard pre- and post-test counselling were gathered during the baseline period of 26 January 1993 to 19 April 1993. The fiscal year was 1993.

Source of effectiveness data
Effectiveness data were derived from a single study.

Link between effectiveness and cost data
The costing was carried out retrospectively on the same patient sample as that used for the effectiveness analysis.

Study sample
Power calculations were not used to determine the sample size. In the ATC, there were 918 subjects in the standard protocol group versus 984 in the rapid protocol group. In the STD clinic, there were 1,160 subjects in the standard protocol group against 1,493 in the rapid protocol group. A total of 225 patients, 114 from the STD clinic and 111 from ATC, were surveyed to assess client preference and satisfaction. A focus group of counsellors (no figure was given) in the ATC and the STD clinic was assessed to find out the counsellor reaction to the rapid test. The number of clinic days
for both groups of patients was 60 days.

**Study design**
The study was a non-randomised trial with historical controls, carried out in two centres. The duration of follow-up was 1 year and no loss to follow-up was reported.

**Analysis of effectiveness**
The analysis of effectiveness was based on treatment completers only. The primary health measures adopted were the number of persons learning their serostatus, acquisition of new STD as an indirect measure of HIV risk based on clinic records of STD clinic, client satisfaction assessed by a five point Likert-type scale from 1 to 5, and counsellor acceptance. The comparability of the patients in the two groups was not fully established.

**Effectiveness results**
After the introduction of the rapid protocol, the number of persons learning their serostatus increased by 4% for uninfected and 16% for infected clients at the ATC versus 210% for uninfected and 23% for infected patients at the STD clinic. The acquisition rate of new STD at the one-year follow up was 6% (70/1160) for patients in the standard group versus 5.9% (84/1437) for patients in the rapid group (odds ratio, 0.97; 95% CI: 0.7 - 1.4). In terms of client satisfaction, a total of 88% of previously tested patients preferred the rapid test, 92% favoured receiving the same-day test results and 89% had no difficulty in understanding the meaning of their test results. In terms of counsellor acceptance, it was reported that after 1 month's experience the focus counsellors "did not report increased stress in themselves, nor did they report increased stress in their clients in response to" the rapid protocol.

**Clinical conclusions**
Single session counselling did not appear to result in a greater amount of behavioural disinhibition or increased HIV risk.

**Measure of benefits used in the economic analysis**
No summary benefit measure was identified in the economic study, and only separate clinical outcomes were reported.

**Direct costs**
Quantities were not reported separately from the costs. The cost items were not reported separately. The cost analysis included fixed costs (rent, janitorial services, utilities, equipment, and administrative costs) and variable costs (provider time and materials). The cost per test and per person receiving results and counselling were reported. The study was carried out from the perspective both of society and of the clinic. Time and motion studies were used to estimate the time spent by providers and these were complemented by counsellor time diaries for standard and rapid test sessions (100 sessions for each protocol). Cost data for the delivery of services were obtained from the study sites. Patients' costs were extracted from a survey of 102 ATC patients and 100 STD clinic patients. 1993 price data were used.

**Indirect Costs**
Quantities were not reported separately from the costs. The cost items were reported separately. The indirect cost included in the cost analysis was the value of patient time spent travelling to the clinic, assessed in terms of wages forgone. The average hourly wage rate for the Dallas area obtained from an official office was used to estimate the value of patient time. The patient time spent travelling to the clinic was extracted from a survey of 102 ATC patients and 100 STD clinic patients. 1993 price data were used.

**Currency**
US dollars ($).
Sensitivity analysis
No sensitivity analysis was performed.

Estimated benefits used in the economic analysis
Not applicable.

Cost results
The total cost per test for the standard protocol in the ATC was $141 versus $130 for the rapid protocol. The total cost per person receiving results and counselling for the standard protocol in the ATC was $151 versus $131 for the rapid protocol. The total cost per test for the standard protocol in the STD clinic was $113 versus $102 for the rapid protocol. The total cost per person receiving results and counselling for the standard protocol in the STD clinic was $375 versus $95 for the rapid protocol.

Synthesis of costs and benefits
Costs and benefits were not combined since the use of the rapid protocol was regarded as the dominant strategy.

Authors' conclusions
Rapid, on-site HIV testing was feasible, was preferred by clients, and resulted in significant improvement in the number of persons learning their serostatus, without increasing the costs or decreasing the effectiveness of counselling and testing.

CRD COMMENTARY - Selection of comparators
The reason for the choice of the comparator is clear.

Validity of estimate of measure of benefit
The internal validity of the effectiveness results may be weakened by the lack of a randomised design.

Validity of estimate of costs
The resource utilisation was not reported separately from the costs. However, adequate details of the methods of cost estimation were given.

Other issues
Given the lack of randomisation, sensitivity analysis, and statistical analysis of the costs, the results need to be treated with some caution. The issue of generalisability to other settings or countries was not addressed.

Source of funding
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