TITLE: Level of Adherence to High Active Antiretroviral Therapy (HAART): Clinical Evidence

DATE: 02 June 2011

RESEARCH QUESTIONS

1. What is the evidence on adherence to HAART used to treat adults in developed countries with HIV infection?

2. What is the evidence on the impact of level of adherence to HAART on health outcomes of patients and costs of HAART?

3. What is the evidence on the barriers to HAART adherence?

KEY MESSAGE

Evidence suggests that adherence to HAART is associated with reduced viral loads and improved CD4 cell counts, but it is uncertain if increased adherence translates to an improved quality of life; there are several barriers to HAART adherence including substance use and a high pill burden.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2011, Issue 4), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews and meta-analyses. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between Jan 1, 2006 and May 17, 2011. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first.

Three systematic reviews were identified regarding the evidence and the impact of adherence to HAART on patient health outcomes; no literature was identified regarding the impact of level of adherence to HAART on treatment costs. Ten systematic reviews evaluated the barriers to HAART adherence. Additional references of potential interest can be found in the appendix.

OVERALL SUMMARY OF FINDINGS

Two systematic reviews found that improved adherence to HAART through interventions (for example frequent contact with patients and medication management) was associated with a decreased viral load or increased CD4 cell count in HIV patients.\(^1,2\) One review\(^1\) showed that interventions implemented through a community health worker model improved HAART adherence while the other review\(^2\) found that the effectiveness of interventions was reduced with increasing levels of standard care. A third systematic review found that there is still uncertainty around whether increased adherence to HAART is associated with an improved quality of life.\(^3\) There was no evidence identified regarding the effect of specific levels of HAART adherence on patient outcomes and costs.

The barriers to HAART adherence are numerous and varied. One systematic review\(^4\) found that adherence was associated with infection stage, viral loads, and university education. Decreased HAART adherence was observed in the following groups of HIV patients: alcohol users;\(^5,8\) patients having a pill burden of greater than ten medications per day;\(^7\) and patients with a twice-daily medication regimen versus those with a once-daily regimen.\(^10\) Drug users had decreased adherence in one systematic review\(^12\); yet a meta-analysis found that drug users had similar adherence to HAART as non-drug users.\(^6\) A lower socioeconomic status\(^11\) and impaired neuropsychological functioning\(^9\) were also factors that decreased adherence, although the evidence was inconclusive. One systematic review\(^13\) looked at studies conducted in both developed and developing nations and found similar barriers to HAART adherence in both settings, which included fear of disclosure, substance abuse, treatment suspicions, decreased quality of life due to treatment, complicated regimens, and access to medication.
REFERENCES SUMMARIZED

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses

*Impact of adherence to HAART on patient outcomes*


*Barriers to HAART adherence*


APPENDIX – FURTHER INFORMATION:

Review articles


Non-randomized studies


Additional references