

Oral presentation

O132 Secondline ART in the developing world

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The majority of the 3 million HIV-infected individuals currently believed to be on antiretroviral therapy (ART) are predominantly from the developing world. Most are on firstline therapy with no prior experience of ART. Inevitably antiretroviral failure will occur in some requiring switch to secondline ART. In a WHO survey of 23 resource-limited countries in early 2006, 96% of adult patients were on first line ART and only 4% (1% to 15%) were on secondline ART. In children, the corresponding figures were 99% and 1%. There was great variability in what was considered secondline ART by respondents. Resource availability is central to the roll out of ART in the developing world. While drug availability and human resource concerns are being actively addressed through a variety of initiatives, the availability and distribution of laboratory facilities are likely to remain an impediment to the diagnosis and management of ART failure. Discussion of ART failure in the developing world has centred on criteria for clinical, immunological and virologic failure. Conceptually virologic failure is regarded as early diagnosis whilst clinical failure as late diagnosis of failure. Central to the occurrence of ART failure is the resumption of viral replication which clearly requires demonstration of the return of viraemia by viral load measurement. Moreover, to optimally guide the choice of secondline drugs, resistance testing is essential. With resource limitations, clinical and occasionally immunological assessment is the only option available to diagnose ART failure in most parts of the developing world. This inevitably results in patients being switched to secondline therapy after they have accumulated a large number of resistance mutations as exemplified in several studies such as the DART study in Zimbabwe and Uganda and studies in Malawi, India and elsewhere. Conversely, reliance on clinical and immunological criteria for the diagnosis of ART failure may result in patients who have not failed being switched to secondline ART. Secondline ART strategies in the devel-

oping world must of necessity take into account resource constraints. Viral load determination and realtime resistance testing will not become a reality for the majority of patients presumed to fail firstline ART in this environment. The best strategies to identify and manage firstline ART failure and the best ways to choose secondline ART combinations in the developing world are inevitably pragmatic and often based on expert opinion rather than hard evidence.