Medical Challenges of HIV/AIDS pandemic: The WHO perspective

SOLTHIS HIV Forum

Marco Vitoria
HIV/AIDS Department
World Health Organization

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Evolution of WHO ART guidelines

Topic	2002	2003	2006	2010	2013
When to start	CD4 ≤200	CD4 ≤ 200	CD4 ≤ 200 - Consider 350 - CD4 ≤ 350 for TB	CD4 ≤ 350 -Irrespective CD4 for TB and HBV	CD4 ≤ 500 -Irrespective CD4 for TB, HBV, PW and SDC - CD4 ≤ 350 as priority
1st Line	8 options - AZT preferred	4 options - AZT preferred	8 options - AZT or TDF preferred - d4T dose reduction	6 options & FDCs - AZT or TDF preferred - d4T phase out	2 options & FDCs - TDF and EFV preferred across all populations
2nd Line	Boosted and non-boosted PIs	Boosted PIs -IDV/r LPV/r, SQV/r	Boosted PI - ATV/r, DRV/r, FPV/r LPV/r, SQV/r	Boosted PI - Heat stable FDC: ATV/r, LPV/r	Boosted PI - Heat stable FDC: ATV/r, LPV/r
3rd Line	None	None	None	DRV/r, RAL, ETV	DRV/r, RAL, ETV
Viral Load Testing	No	No (Desirable)	Yes (Tertiary centers)	Yes (Phase in approach)	Yes (preferred for monitoring, use of PoC, DBS)

Earlier initiation

Simpler treatment

Less toxic, more robust regimens

Better monitoring

Vitoria M, Vela S , Ford N , Curr. Opin. HIV/AIDS, Jan 2013

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Major implications of new WHO ART guidelines

- **Change in CD4 threshold for ART initiation:**
  - Revision of treatment targets and priorities
- **Change in preferred initial ARV regimens:**
  - Transitioning drug regimens (TDF phase-in and d4T phase-out)
  - Use of Fixed Dose Combinations (FDCs)
- **Change in ART monitoring (phase in HIV viral load):**
  - VL monitoring may require initial and on-going investments
- **Change in service delivery and organization:**
  - Integration
  - Decentralization & Task shifting
  - Patient flow, linkages, referrals
  - Adherence support

Medical challenges – Overview (1)

Key Areas	What we have achieved in the last decade	What we expect for the next decade (and beyond…)
Global Treatment Coverage	• 10 million on ART in RLS in 2012	• "15 by 15", elimination of vertical transmission, 50% reduction in TB related deaths • Post 2015 targets (moving towards UA)
Time to Diagnosis, ART Initiation and Retention in Care	• HIV diagnosis and ART initiation still done at late stages • high early mortality on ART and poor retention to care • TB as an important co-morbidity but with well established policies	• Expansion of PITC and other HIV testing strategies (including home based, community based and self testing), • Early ART initiation (% of asymptomatic and median CD4 at ART initiation), more focus on key populations • Reduction of early mortality on ART, • More impact of chronic inflammation long term complications and Hep C co-infection • Improved retention to care (community based models)
Laboratory Support for Treatment Monitoring	• CD4 more available, but limited access to VL (high cost and complex technologies)	• Expanded access to cheaper and simpler PoC technologies • Integrated lab platforms

Medical challenges – Overview (2)

Key Areas	What we have achieved in the last decade	What we expect for the next decade (and beyond…)
Health System Delivery	• Treatment predominantly MD centered (and focused on district level)	• Task shifting and community support (moving towards primary care and community levels)
ARV Regimens	• Less toxic /lower pill burden regimens more available • Limited use of FDCs. Limited pediatric ARV options and formulations • Interactions with TB and Hep C drugs still a problem	• Preferred FDC options for 1st and 2nd line regimens (one pill once day) that cover all targeted populations • New ARVs (and new TB/ Hep C drugs) with better pharmacological profile • Long acting drugs (for PreP? for ART?)
Treatment Strategies	• More than 25 ARV options, • Treatment limited to 3 major classes (NRTI, NNRTI and PI), with significant cross resistance and toxicity in long term	• New ARV drugs of current classes (2nd generation PIs and NNRTIs), • New ARV classes (integrase inhibitors, entry blockers, others?,) • New strategies (induction maintenance, once week/month regimens, co-therapies, anti-latency drugs?)