Introduction:
Management of High Viral Load
Results and Clinical Management

AIDSFree Webinar
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Today’s Presentations

- EGPAF Malawi
- ASSIST Project, Uganda
- CDC and I-TECH, Zimbabwe
Recommendations on Use of Viral Load Testing for ART Monitoring and its Availability

Source: Putting HIV and HCV to the Test, 3rd Ed (MSF, 2017)
Global Status of 90-90-90

<table>
<thead>
<tr>
<th>Category</th>
<th>2015</th>
<th>2016</th>
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</thead>
<tbody>
<tr>
<td>Percent of people living with HIV who know their status</td>
<td>70%</td>
<td></td>
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<tr>
<td>Percent of people who know their status who are on ART</td>
<td>77%</td>
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<tr>
<td>Percent of people on ART who achieve viral suppression</td>
<td></td>
<td>82%</td>
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Source: UNAIDS special analysis, 2017
Algorithm for Viral Load Monitoring

1. Targeted viral load monitoring (suspected clinical or immunological failure)
2. Routine viral load monitoring (early detection of virological failure)
3. Test viral load
4. Viral load ≥ 1,000 copies/ml
5. Evaluate for adherence concerns
6. Provide adherence support
7. Repeat viral load testing after 3-6 months
8. Once improved adherence assessed
   - Vira load < 1,000 copies/ml
     - Maintain first-line therapy
   - Viral load > 1,000 copies/ml
     - Switch to second-line therapy

Source: Adapted from Consolidated Guidelines, WHO, 2016
Treatment Failure Determined by Viral Load

• Virologic treatment failure:
  – Persistent plasma viral load >1000 copies/ml when measured at least 6 months after starting ART
  – “Persistent” defined as >2 consecutive viral load results 3 months apart with adherence support between measurements

• Timely detection of treatment failure permits:
  – Better clinical outcomes and lower mortality rates
  – Lower likelihood of transmission
  – Preservation of second line treatment options

Timely detection of treatment failure can be supported through effective clinical management and viral load results management.
Management of High Viral Load Results

Viral Load > 1,000 copies/ml

Virus is NOT suppressed:
- Current ART working but patient is not adherent
- ART is not working due to resistance or treatment failure
- Transient viral load increases
- Actions for clinic staff, counsellor and patient

Viral Load ≤ 1,000 copies/ml

Virus is suppressed
- ART is working
- Action: Continue current regimen

Undetectable

Does not mean HIV has disappeared; still present in reservoirs
- Continue current regimen

Source: ASLM Training Tools
Management of High Viral Load Results: Example of SOP from Zimbabwe

**Step 1: Results arrive**
- High viral loads are separated
- Patients' details are entered into the high viral load register
- High viral load summary form is completed
- Normal viral loads are filed

**Step 2: Trace patients with high viral load**
- Staff member is delegated to trace patients with high viral load via phone or through the community health workers
- Recently, SMS of high viral load results to both clinic and patients has been introduced as an additional means of contacting patients

**Step 3: Patient is seen for first EAC session**
- Patient is identified through the high viral load form that flags the file and is triaged to EAC on arrival
- Patient is given 1-month refill and booked for a second EAC session in 1 month

[Link: Other clinical implementation resources available on the AIDSFree website](#)

Source: [Making Viral Load Routine, MSF, 2016](#)
Differentiated Clinical Management for Stable and Unstable Clients

Source: Nathan Ford, IAS 2017. Adapted from What’s New In Service Delivery, WHO, 2015
Clinical Management of Unsuppressed Client: 
Tools to Monitor Facility and Patient Compliance with EAC

1. High VL Register
2. High Viral Load Forms (in patient files)
3. EAC session observation checklist

Source: ASLM Training Tool
Adherence Interventions Significantly Improve Virologic Suppression

- In one study, 53% of those with initial VL $\geq 1,000$ copies/ml achieved virologic suppression after early viral load testing and a targeted intensive adherence intervention.

- Other studies have found that between 54-89% of patients will re-suppress.

Adherence interventions can also prevent the development of resistance and preserve the first line treatment regimen.

Source: Bonner et al., JAIDS 2013 and Orrell et al., Antivir Ther 2007
Clinical Management of Unsuppressed Client: 
Factors Facilitating Second Line Switch

Factors that can facilitate switch to second-line ART regimens include:

**Human Resources:**
- Decentralization of second-line initiation
- Task-shifting of second-line initiation to non-physician cadres
- Clinical training and mentorship for managing treatment failure and transitioning to second line

**Data Availability and Management:**
- m-Health strategies to allow remote clinical decision support for switching
- Use of pharmacy-based adherence measures (Puttkammer et al, PLoS One, 2014)
- Clinical decision support systems used with electronic medical records (Oluoch et al, Lancet 2016)

**Health System:**
- Ensuring second-line drugs are available where the patient is accessing their first-line therapy
- Ongoing adherence support following the switch to second-line ART
- Availability of resistance testing
Summary

• Scale up of viral load monitoring requires careful focus on how results and clients are managed to allow for clinical decision-making.

• Adequate support of adherence interventions is crucial to avoid unnecessary second line switch.

• Considerations for strengthening regimen switches include human resources, health systems, and data availability.
Thank you!