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| **MANAGEMENT OF ADVANCED HIV DISEASE JOB AID and SOP** | |
| Version Number: | 05.2022 |
| Effective Date: | Next revision date: |
| Signed by COP |  |

**PURPOSE:** To provide information and guidance on identification, diagnosis, management, and reporting of Advanced HIV Disease (AHD) at outpatient and the Comprehensive Care Clinics.

**What is Advanced HIV Disease?**

According to WHO, a**ll children younger the 5 years living with HIV are considered to have AHD**. **Adults and adolescents** (and children 5 years and older) are defined as having AHD if they have:

1. CD4 cells of less than 200 cells/mm3 OR
2. WHO clinical stage 3 or 4 disease

People with AHD are at **increased risk of death, even after starting ART**. The risk of mortality increases with decreasing CD4 count. NASCOP data shows that mortality among AHD is highest in the first 3 months after starting ART. All PLWH with AHD should be offered the AHD package of care.

**Patient groups affected by AHD include:**

1. **Newly diagnosed** HIV positive patients
2. Patient with **treatment failure and decline in CD4 count** and,
3. Individuals who had previously initiated on ART, **were LTFU and are re-engaging to care**

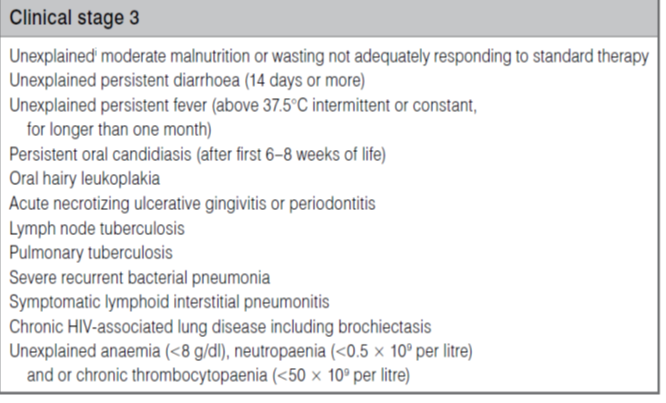
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| Causes of Morbidity and Mortality in Patients with AHD | |
| Tuberculosis | 35% |
| Cryptococcal Meningitis | 18% |
| Severe Bacterial Infections | 17% |
| Pneumocystis Pneumonia | 15% |
| Toxoplasmosis | 15% |

This SOP includes five sections: (1) Review of WHO Clinical Stage 3 and 4 diseases (2) Screening for AHD, (3) Screening for Danger Signs, (4) Adults and adolescent AHD Package of Care and (5) Pediatric AHD Package of Care.

**All patients with AHD should be recorded in the facility AHD register at diagnosis. The register should be updated during patient follow up and reported as per program recommendations.**

1. **Review of WHO HIV Clinical Stage 3 and 4 Diseases**

**Children**

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1. **Screening for Advanced HIV Disease**

**CD4 testing is ESSENTIAL for identification of patients with AHD**. CD4 testing is indicated in these patient populations who are at risk of AHD:

**Those RE-ENGAGING AFTER DEFAULTING from care (off ART) for at least 6 months**

**Those with TREATMENT FAILURE to assess risk of OIs (with no recent CD4 result)**

**All NEWLY DIAGNOSED HIV positive patients CD4 at baseline**

**AHD CRITERIA**

1. **CALHIV ≤ 5 years old OR**
2. **Adults and Adolescents (and children > 5 years old) with CD4 ≤ 200 cell/mm3 OR WHO Stage 3 or 4 Disease**

**If patient has advanced HIV disease:**

1. Screen for WHO Stage 3 and 4 diseases
2. Screen for danger signs and provide immediate supportive treatment and referral (see below).
3. If patient is stable and diagnosis made (e.g., PTB), treat as per recommended guidelines.
4. If CD4 results not readily available, screen for danger signs, refer and/or treat appropriately**.**

**Record in POC for follow up of CD4 results at next visit.**

1. Provide AHD Package of care to **ALL** adults, adolescents, and children with AHD (see below).
2. If **Failing ART**, follow guidelines for STF management.
3. If **Re-engaging in care**, follow guidelines for restarting ART.
4. Assign **Case Manager** to all AHD patients and review AHD patients at **MDT meetings.**
5. Consult County/BLU RTWG on complex and/or 2nd line treatment failure cases.
6. Close follow up (**WATCH OUT FOR IRIS**)
7. Ensure that patient information is recorded on **Facility AHD Register** at AHD diagnosis and subsequent visits.

**ORDER CD4 (Reflex Serum CRAG Testing Performed at Lab for ALL CD4 ≤ 200 cells/mm3)**

1. **Screening for DANGER SIGNS**

Screen for DANGER signs in **ALL patients** (ART naïve or experienced) identified to have AHD with WHO stage 3 or 4 disease or with CD4 <200 cells/mm3.

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| A red and white sign  Description automatically generated with low confidence**Screen for Danger Signs: A patient with any ≥1 danger signs, Mortality is HIGH.**  **DO NOT DELAY INVESTIGATIONS AND MANAGEMENT!** | |
| **Respiratory rate >30/min** | **Moderate/severe dehydration** |
| **Heart rate >120/min** | **Unable to walk unaided/bedridden** |
| **Systolic BP <90mmHg** | **Altered mental state/Confusion/Reduced GCS** |
| **Temperature >39°C** | **Any other neurological symptoms - headache, seizures, cranial nerve palsies, rapid deterioration of vision, difficulty talking)** |
| **SpO2 <90%** |

**PRESENT**

**ABSENT**

* Complete clinical history, examination, and assessment for TB and other OIs
* Conduct appropriate labs as needed: CD4, Urine LAM, Serum CRAG etc.
* If diagnosis made, treat as per recommendations
* AHD Package of Care
* Record on AHD register
* **CRITICALLY UNWELL patient**
* Take good history and examine patient
* Immediately provide supportive management (e.g., oxygen, IV fluids, 50% dextrose)
* Request for **urgent labs/imaging**
* Start **urgent treatment**: (e.g., antibiotics, TB treatment, etc.)
* **Refer for Admission**

1. **What is the Adult and Adolescent AHD Package of Care?**

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| Intervention | Who? | CD4 Count | Comments |
| Sputum GeneXpert MTB/Rif | Recommended for TB diagnosis for ALL symptomatic HIV | Any CD4 Count |  |
| TB LAM | * PLWH with Advanced HIV Disease * Severely ill and admitted patient * All PLHIV with TB signs and symptoms | * CD4 200 cells/mm3 * Any CD4 count in those severely ill |  |
| Cryptococcal Antigen Screening | All adolescents and adults | CD4 ≤200 cells/mm | **- REFLEX** serum CRAG Testing at Lab  - Treat or offer pre-emptive treatment for crypto  - **Ensure treatment stage is recorded on POC** (Induction, Consolidation or Maintenance)  - **Repeat CD4 at 6, 12 and 18 months** after treatment start to guide on when to stop maintenance therapy with fluconazole |
| Cotrimoxazole Prophylaxis | All PLWH | Any CD4 count | For all PLWH regardless of CD4 count |
| TB Preventive Treatment | TB Asymptomatic PLWH, newly enrolling to care | Any CD4 Count |  |
| Test and Treat (ART) | * All PLWH. * **Defer ART** in Cryptococcal Meningitis, PTB or TBM as per guidelines | Any CD4 count | Watch out for IRIS |
| Offer Standard Package of Care to ALL patients | | | |
| Close Follow up of ALL patients with AHD | | | |

**Notes**

1. If CD4 results not readily available, screen for danger signs as above, refer and/or treat appropriately**. Record in POC for follow up of CD4 results at next visit.**
2. **Please be cognizant of other disorders** including NCDs, thyroid disease, malignancies etc. that can also affect a patient’s clinical status.
3. For ALL patients with AHD, **please record data at diagnosis and follow up on POC and Facility AHD register and ensure optimal follow up (Include information on patients recently discharged from hospital).**
4. **Paediatric AHD Package of Care (STOP AIDS-Adopted from WHO)**

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| Screen, Treat, Optimize, Prevent (STOP) AIDS | | | |
|  | **Intervention** | **Recommendation** | **Comments** |
| SCREEN | **Tuberculosis\*** | * Screen for TB (incl CXR) as recommended by national guidelines * **GeneXpert** on sputum, stool, gastric aspirate, nasopharyngeal aspirate or other extrapulmonary sample * **TB Urine LAM** | TB LAM recommended for children and adolescents with   * Signs and symptoms of TB * With AHD or are seriously ill * With CD4 count <100 cell/mm |
| **Cryptococcal infection in adolescents** | Serum CRAG | **- REFLEX** CRAG Testing at Lab |
| **Malnutrition** | * Weight-for-height * Height-for-age * Mid upper arm circumference among children 2–5-years old | At every visit |
| TREAT | **Opportunistic Infections** | Treat TB, Severe Bacterial Infections, Cryptococcal Meningitis and Severe Acute Malnutrition as per guidelines |  |
| OPTIMIZE | **ART** | * Rapid Antiretroviral Therapy Start   (Defer ART in Cryptococcal Meningitis, PTB or TBM as per guidelines)   * ART Counselling |  |
| PREVENT | **Bacterial infections and PCP** | Co-trimoxazole prophylaxis |  |
| **TB** | TB Preventive Treatment |  |
| **Cryptococcal Meningitis among adolescents** | Treat or Offer Fluconazole Pre-emptive therapy | - **Ensure treatment stage (induction, consolidation, maintenance) is recorded on POC**  - **Repeat CD4** at 6 and 12 months after treatment start to guide maintenance therapy |
|  | **Vaccinations** | Ensure Vaccination Status Up to Date |  |
| Offer Standard Package of Care to ALL patients | | | |
| Close Follow up of ALL patients with AHD (Watch out for IRIS) | | | |

**\*A negative test does not exclude TB in children living with HIV in whom there is a strong clinical suspicion of TB**

**\*\*For complex/2nd line STF cases consult RTWG**

\*\*If CD4 results not readily available, screen for danger signs as above, refer and/or treat appropriately**. Record in POC for follow up of CD4 results at next visit.**

**References**

1. *World Health Organization Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach, 2021*
2. *NASCOP Guidelines on Use of Antiretroviral Drugs for Treating and Preventing HIV Infection in Kenya, 2018 Edition*
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5. *Package of care for children and adolescents with advanced HIV disease: stop AIDS: technical brief*
6. *MSF-SAMU HIV/TB Guide, Hospital Level, November 2020*
7. *Uganda Advanced HIV Disease (AHD): Standard Operating Procedures, September 2019,* [*https://cquin.icap.columbia.edu/wp-content/uploads/2020/07/Uganda\_Advanced-HIV-Disease\_screening-tool.pdf*](https://cquin.icap.columbia.edu/wp-content/uploads/2020/07/Uganda_Advanced-HIV-Disease_screening-tool.pdf)
8. *Unitaid Advanced HIV Disease Initiative, Advanced HIV Disease Toolkit, PowerPoint Presentation*