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MANAGEMENT OF ADVANCED HIV DISEASE JOB AID and SOP	
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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/mm^3 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**

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.

I. Review of WHO HIV Clinical Stage 3 and 4 Diseases

Adults and adolescents

Clinical stage 3
Unexplained[i] severe weight loss (>10% of presumed or measured body weight)
Unexplained chronic diarrhoea for longer than one month
Unexplained persistent fever (above 37.6°C intermittent or constant, for longer than one month)
Persistent oral candidiasis
Oral hairy leukoplakia
Pulmonary tuberculosis (current)
Severe bacterial infections (such as pneumonia, empyema, pyomyositis, bone or joint infection, meningitis or bacteraemia)
Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis
Unexplained anaemia (<8 g/dl), neutropaenia (<0.5 × 10^9 per litre) or chronic thrombocytopaenia (<50 × 10^9 per litre)
Clinical stage 4[ii]
HIV wasting syndrome
Pneumocystis pneumonia
Recurrent severe bacterial pneumonia
Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration or visceral at any site)
Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs)
Extrapulmonary tuberculosis
Kaposi's sarcoma
Cytomegalovirus infection (retinitis or infection of other organs)
Central nervous system toxoplasmosis
HIV encephalopathy
Extrapulmonary cryptococcosis including meningitis
Disseminated non-tuberculous mycobacterial infection
Progressive multifocal leukoencephalopathy
Chronic cryptosporidiosis (with diarrhoed)
Chronic isosporiasis
Disseminated mycosis (coccidiomycosis or histoplasmosis)
Recurrent non-typhoidal Salmonella bacteraemia
Lymphoma (cerebral or B-cell non-Hodgkin) or other solid HIV-associated tumours
Invasive cervical carcinoma
Atypical disseminated leishmaniasis
Symptomatic HIV-associated nephropathy or symptomatic HIV-associated cardiomyopathy

Children

Clinical stage 3
Unexplained[i] moderate malnutrition or wasting not adequately responding to standard therapy
Unexplained persistent diarrhoea (14 days or more)
Unexplained persistent fever (above 37.5°C intermittent or constant, for longer than one month)
Persistent oral candidiasis (after first 6–8 weeks of life)
Oral hairy leukoplakia
Acute necrotizing ulcerative gingivitis or periodontitis
Lymph node tuberculosis
Pulmonary tuberculosis
Severe recurrent bacterial pneumonia
Symptomatic lymphoid interstitial pneumonitis
Chronic HIV-associated lung disease including brochiectasis
Unexplained anaemia (<8 g/dl), neutropaenia (<0.5 × 10^9 per litre) and or chronic thrombocytopaenia (<50 × 10^9 per litre)
Clinical stage 4[i]
Unexplained severe wasting, stunting or severe malnutrition not responding to standard therapy
Pneumocystis pneumonia
Recurrent severe bacterial infections (such as empyema, pyomyositis, bone or joint infection or meningitis but excluding pneumonia)
Chronic herpes simplex infection (orolabial or cutaneous of more than one month's duration or visceral at any site)
Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs)
Extrapulmonary tuberculosis
Kaposi sarcoma
Cytomegalovirus infection: retinitis or cytomegalovirus infection affecting another organ, with onset at age older than one month
Central nervous system toxoplasmosis (after one month of life)
Extrapulmonary cryptococcosis (including meningitis)
HIV encephalopathy
Disseminated endemic mycosis (coccidiomycosis or histoplasmosis)
Disseminated non-tuberculous mycobacterial infection
Chronic cryptosporidiosis (with diarrhoed)
Chronic isosporiasis
Cerebral or B-cell non-Hodgkin lymphoma
Progressive multifocal leukoencephalopathy
Symptomatic HIV-associated nephropathy or HIV-associated cardiomyopathy

II. 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:

All NEWLY DIAGNOSED HIV positive patients CD4 at baseline	Those with TREATMENT FAILURE to assess risk of OIs (with no recent CD4 result)	Those RE-ENGAGING AFTER DEFAULTING from care (off ART) for at least 6 months

AHD CRITERIA

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

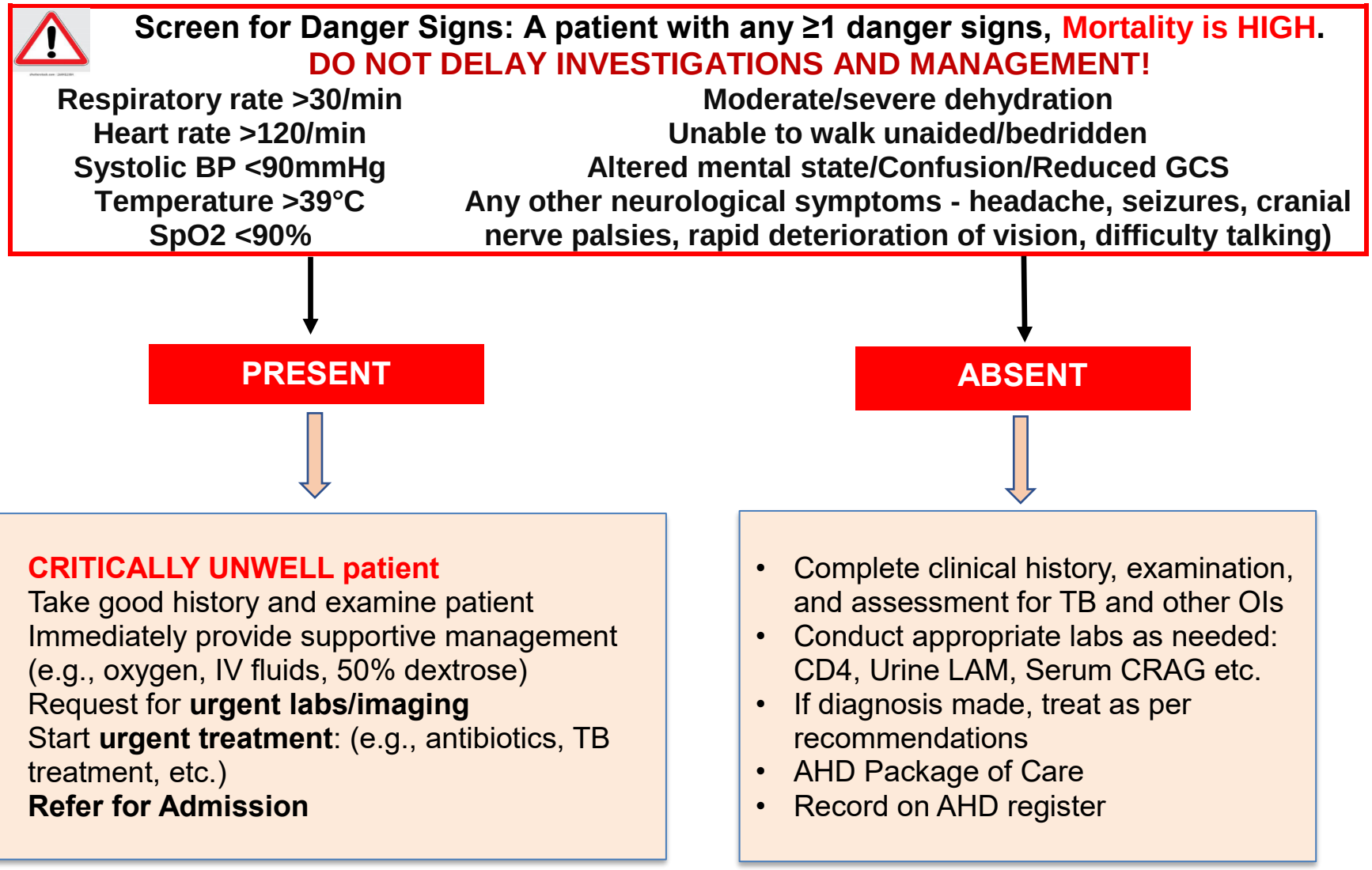
ORDER CD4 (Reflex Serum CRAG Testing Performed at Lab for ALL CD4 ≤ 200 cells/mm^3)

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

III. 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.



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

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/mm^3 - 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).**

V. Paediatric AHD Package of Care (STOP AIDS-Adopted from WHO)

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

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