

# Clinical Spectrum of Acquired Immunodeficiency Syndrome at Wangaya Regional General Hospital on January 2018-August 2019

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**Abstract:** *Acquired immunodeficiency syndrome (AIDS) is the leading infectious cause of adult death in the world. Untreated disease caused by the human immunodeficiency virus (HIV) has a case fatality rate that approaches 100%. Diagnose of HIV/AIDS base on "case definition for aids and surveillance" according WHO (1993) and the clinical diagnose divided into mayor and minor symptoms. Mayor symptoms are clinical sign that are invariably or almost invariably present and minor symptoms are less frequent but are often associated in a significant manner with the preceding symptoms. In this research reported clinical manifestation of AIDS surveillance at Wangaya Regional General hospital on January 2018 – August 2019 that compared with clinical of AIDS according WHO. Two hundred and eighty-four patients that diagnose AIDS (>13 years old) were studied at Wangaya Regional General hospital on January 2018-August 2019. In this research show that the clinical of weigh loss > 10% of body weight still be the highest clinical sign of aids in Wangaya Regional General hospital. This research suitable with "case definition and surveillance" according WHO that weigh loss >10% in mayor criteria of HIV/AIDS.*

**Keywords:** HIV, AIDS, Surveillance

## 1. Introduction

Acquired immunodeficiency syndrome (AIDS) is the leading infectious cause of adult death in the world. Untreated disease caused by the human immunodeficiency virus (HIV) has a case fatality rate that approaches 100%. AIDS has torn apart families and caused untold suffering in the most heavily burdened regions. HIV/AIDS is a major global health emergency.<sup>1</sup> Ethiopia is one of the seriously HIV/AIDS affected countries in sub-Saharan Africa, with more than 1.3 million people living with the virus. Adult HIV prevalence in Ethiopia in 2016 was estimated to be 1.1% and 0.7% in Southern Nations, Nationalities and Peoples' region (SNNPR).<sup>2</sup> Worldwide, 35 million people live with HIV and 19 million people do not know their positive status.<sup>3</sup> Since the beginning of the epidemic, 75 million people have been infected with the HIV virus and about 32 million people have died of HIV. Globally, 37.9 million (32.7–44.0 million) people were living with HIV at the end of 2018. An estimated 0.8% (0.6-0.9%) of adults aged 15–49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions.<sup>4</sup> In AIDS, most patients have a rapid deterioration leading to death within 2 years, but the spectrum of the disease is broad and some groups of patients with Kaposi's sarcoma have an excellent prognosis for a 3- to 5-year survival.<sup>5</sup> Earlier diagnosis should be combined with improved prevention, treatment and care to make this impact sustainable. One of prevention to prevent mortality and increase morbidity in patient HIV is PITC (providers of testing and counseling) in patients who are at risk and diagnosing AIDS as early as possible. Diagnose HIV/AIDS base on "case definition for aids surveillance" according WHO (1993) and the clinical diagnose divided into mayor and minor symptoms. Positive diagnose of AIDS showed HIV test is positive with 2 mayor symptoms and 1 minor symptoms.<sup>6</sup> The clinical course of Human

Immunodeficiency Virus (HIV) and pattern of opportunistic infections varies from patient to patient and from country to country.<sup>7</sup> In this study research clinical spectrum of HIV/AIDS at Wangaya Regional General Hospital and compared with clinical diagnose HIV/AIDS according case definition for aids surveillance according WHO.

## 2. Methods

The research used retrospective study. Two hundred and eighty-four patients (>13 years old) were studied at Wangaya Regional General hospital on January 2018-August 2019. All of AIDS patients were examined in clinical symptoms. The frequency of each AIDS symptom is examined and compared with the frequency of clinical case definition according to WHO and then obtained to the percentage of each clinical event of AIDS in HIV / AIDS patients in the Wangaya Regional General hospital.

The clinical diagnosis of HIV / AIDS based on WHO. WHO divides the clinical diagnosis of AIDS into major and minor criteria. The distribution of AIDS is based on the frequency of occurrence of clinical symptoms by AIDS patients. Mayor symptoms are clinical sign that are invariably or almost invariably present and minor symptoms are less frequent but are often associated in a significant manner with the preceding symptoms. Positive diagnose of AIDS showed HIV test is positive with 2 mayor symptoms and 1 minor symptoms.<sup>6,8</sup> If there is no HIV testing facility available, if there is one of the Kaposi Sarcoma and pneumonia abnormalities that is life-threatening and recurrent in the diagnosis AIDS.<sup>7</sup>

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**Table 1:** Clinical Diagnose of AIDS<sup>8</sup>

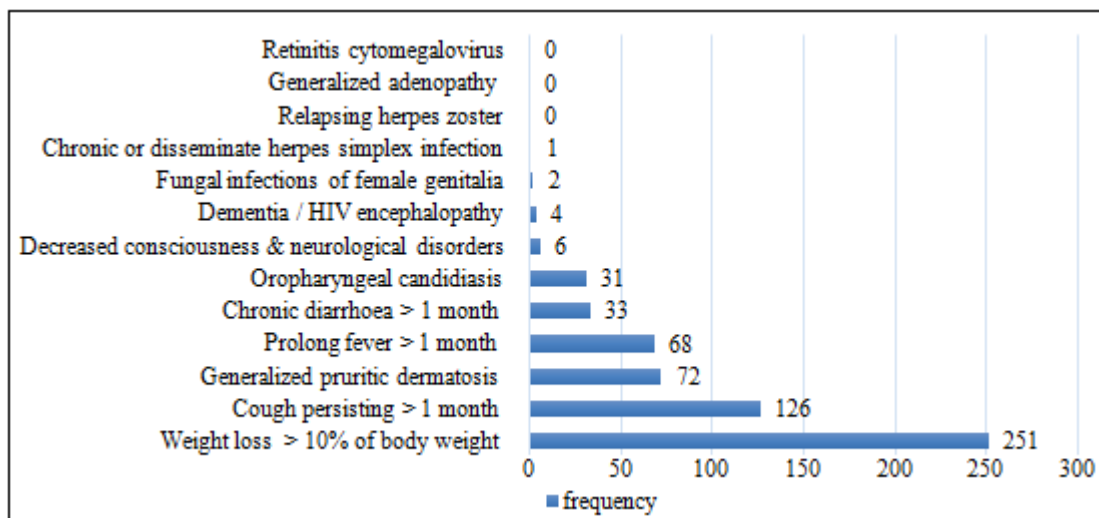
Mayor sign	Minor sign
1) Weight loss > 10% of body weight (100% of cases)	1) Cough persisting > 1 month
2) Chronic diarrhoea > 1 month (80 % of cases)	2) Generalized pruritic dermatosis
3) Prolong fever > 1 month (intermittent or constant) (pada 70% of cases)	3) Relapsing herpes zoster
	4) Oropharyngeal candidiasis
	5) Chronic or disseminate herpes simplex infection
	6) Generalized adenopathy

The diagnosis of HIV / AIDS can also be made in the presence of CD4 results. Patients with HIV positive are confirmed to have HIV infection if their CD4 cell counts are <350 per mm<sup>3</sup> or are confirmed to be infected with HIV if there is a presumption / definitive diagnosis from stage 3 or

4.<sup>9</sup>The 1993 CDC revision emphasized the clinical importance of the CD4+ T lymphocyte count in the categorization of HIV-related clinical conditions. Thus, the AIDS surveillance case definition was expanded to include all HIV-infected persons with fewer than 200 CD4+ T lymphocytes per microlitre (mL) or a CD4+ T lymphocyte percentage of total lymphocytes of less than 14%. This expansion also included the addition of three clinical conditions – pulmonary tuberculosis, recurrent pneumonia and invasive cervical cancer – and retained the 23 clinical conditions in the AIDS surveillance case definition published in 1987.<sup>10</sup>

### 3. Result

In this study, each AIDS patient counted the clinical symptoms.



**Figure 1:** Frequent of Clinical Symptoms in patient AIDS

In Figure 1, Aids patients at Wangaya Regional General Hospital obtained the highest frequency of clinical events is weight loss > 10% of body weight in 251 patients, followed by clinical cough persistent in 126 patients, generalized dermatitis in 72 patients, prolonged fever > 1 month at 68 patients, chronic diarrhea for more than 1 month in 33 patients, oropharyngeal candidiasis in 31 patients, decreased

consciousness and neurological disorders in 6 patients, dementia / HIV encephalopathy in 4 patients, recurrent fungal infections in female genital infections 2 patients, progressive chronic herpes simplex in 1 patient and no symptoms of relapsing herpes zoster, generalized lymphadenopathy were found on patients.

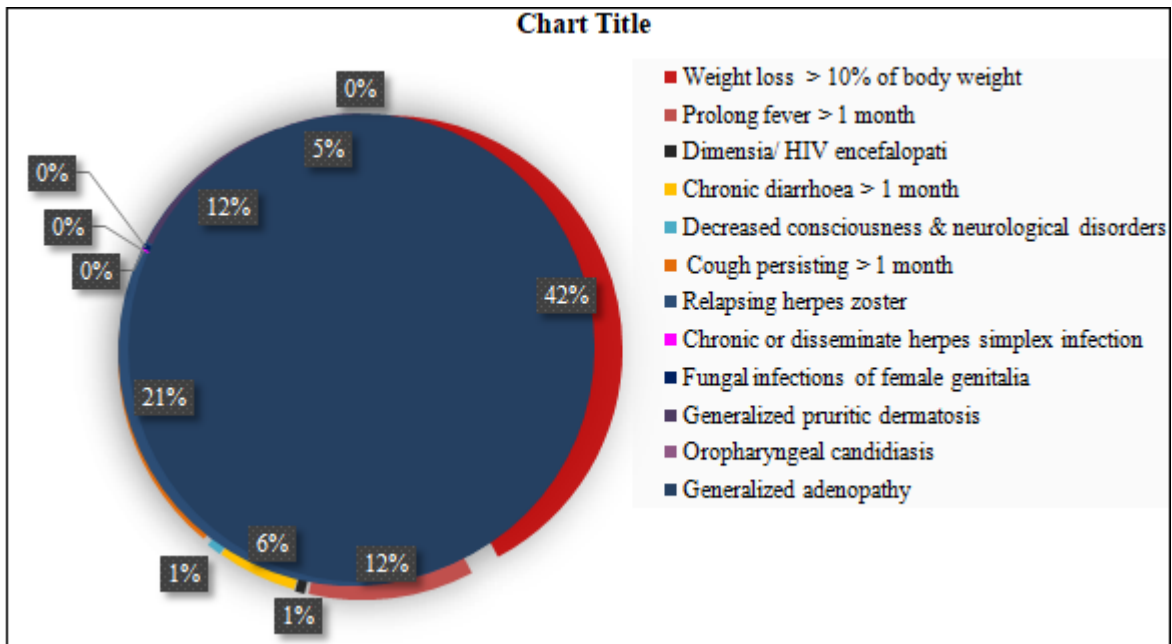


Figure 2: The percentage of Clinical Symptoms of AIDS

In figure 2 shows that the most clinical symptoms of AIDS occur in weight loss > 10% of body weight in 42%, which is then followed by symptoms of cough persisting for > 1 month in 21% and the third highest percentage occurs in generalized pruritic dermatosis in 12%. From this result, it can be obtained the prevalence of clinical AIDS events that

occur in Wangaya Regional General hospital, and if we compare the prevalence of clinical aids with the major and minor criteria according WHO, we can get a significant difference.

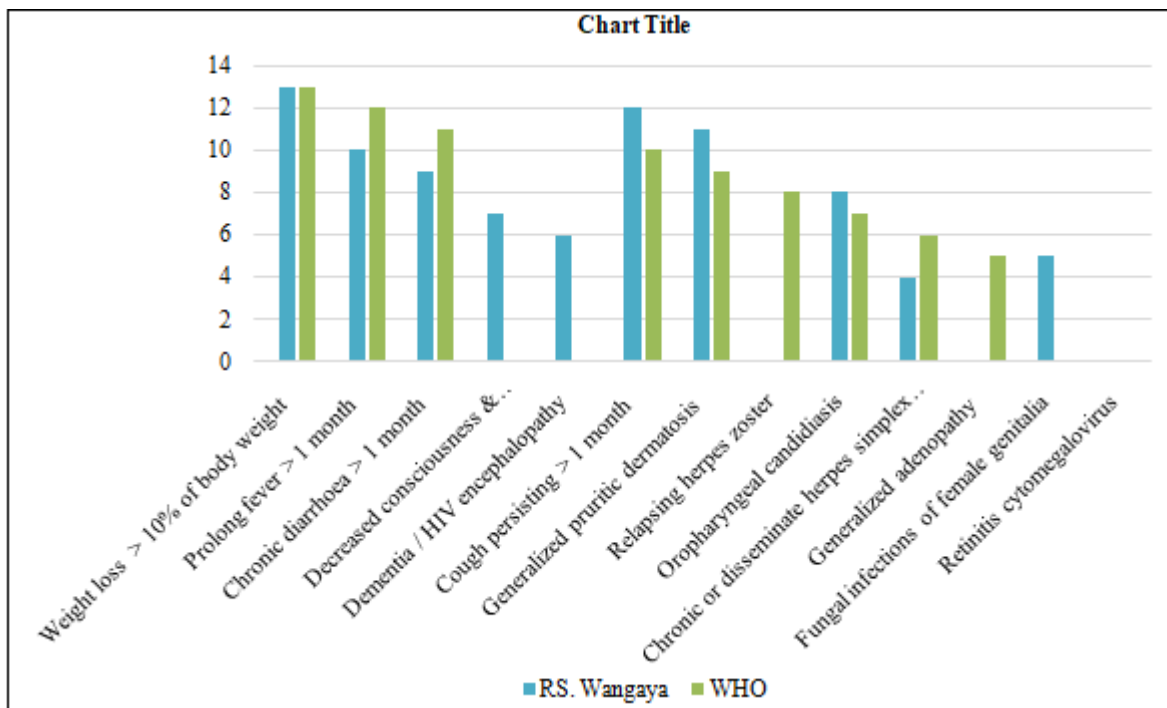


Figure 3: Prevalence of clinical symptoms in AIDS patient at Wangaya Regional General Hospital and clinical symptoms of case definition for aids and surveillance according WHO

In Figure 3, Obtained clinical prevalence of AIDS patients between WHO and RS. Wangaya. In this study it was found that weight loss > 10% of body weight was highest incident rate of clinical AIDS events at Wangaya Regional General hospital and WHO. A second rank at Wangaya Regional General hospital followed by a persistent cough for more than 1 month, but this incident is a minor symptom in WHO,

while the third rank in this study occurs in generalized dermatitis whereas according to WHO the third rank is followed by fever prolonged > 1 month. The fourth rank in this study occurred in prolonged fever > 1 month, but in WHO the fourth rank was chronic cough.

#### 4. Discussion

The research at Wangaya Hospital on January 2018-August 2019, show that clinical incidence of weight loss >10% of body weight is still the highest symptom in AIDS patients. This is suitable with case definition for AIDS and surveillance according WHO that the major criteria are clinical sign that are invariably or almost invariably present.<sup>6</sup> The second symptom that often occurs in AIDS patients in the Wangaya Regional General hospital is a chronic cough >1 month then followed by generalized dermatitis. This is very different from the surveillance found by WHO that chronic cough and generalized dermatitis are minor criteria. Beside that in this research found that prolonged fever >1 month and chronic diarrhea > 1 month inside the minor criteria because these symptoms are less frequent in this research, it is different that found by WHO that prolonged fever > 1 month and chronic diarrhea >1 month are major criteria. So, major and minor symptoms can't be the one of diagnosis of AIDS, we can also presence of CD4 result.

#### 5. Conclusion

In this research show that the clinical of weight loss > 10% still be the highest clinical sign of AIDS in Wangaya Regional General hospital. This research suitable with "case definition and surveillance" according WHO that weight loss >10% in major criteria of HIV/AIDS. For diagnosis AIDS we can use case definition for AIDS surveillance according WHO and can also be made in the presence of CD4 results. Patients with HIV positive are confirmed to have HIV infection if their CD4 cell counts are <350 per mm<sup>3</sup> or are confirmed to be infected with HIV if there is a presumption / definitive diagnosis from stage 3 or 4.<sup>7</sup>

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