# Appendix C: CDC Pediatric HIV CD4 Cell Count/Percentage and HIV-Related Diseases Categorization

**Updated**: Apr.11, 2022 **Reviewed**: Apr.11, 2022

Table A. HIV Infection Stage Based on Age-Specific CD4 Count or Percentage

Stage <sup>a</sup>	Aged <1 Year		Aged 1 Year to <6 Years		Aged ≥6 Years	
	Cells/mm <sup>3</sup>	%	Cells/mm <sup>3</sup>	%	Cells/mm <sup>3</sup>	%
1	≥1,500	≥34	≥1,000	≥30	≥500	≥26
2	750–1,499	26–33	500–999	22–29	200–499	14–25
3	<750	<26	<500	<22	<200	<14

<sup>&</sup>lt;sup>a</sup> The stage is based primarily on the CD4 count; the CD4 count takes precedence over the CD4 percentage, and the percentage is considered only when the count is missing. If a Stage 3–defining condition has been diagnosed (see Table 6), then the stage is 3, regardless of CD4 test results.

Key: CD4 = CD4 T lymphocyte

Source: Centers for Disease Control and Prevention. Revised surveillance case definition for HIV infection—United States, 2014. *MMWR* 2014;63(No. RR-3):1-10.

## **Table B. HIV-Related Symptoms and Conditions**

### Mildly Symptomatic

Children with two or more of the following conditions, but none of the conditions listed in the Moderately Symptomatic category, are considered mildly symptomatic:

- Lymphadenopathy (lymph nodes are ≥0.5 cm at more than two sites and/or bilateral at one site)
- Hepatomegaly
- Splenomegaly
- Dermatitis
- Parotitis
- Recurrent or persistent upper respiratory tract infection, sinusitis, or otitis media

### **Moderately Symptomatic**

- Anemia (hemoglobin <8 g/dL [<80 g/L]), neutropenia (white blood cell count <1,000 per μL [<1.0 × 10<sup>9</sup> per L]), and/or thrombocytopenia (platelet count <100 × 10<sup>3</sup> per μL [<100 × 10<sup>9</sup> per L]) persisting for ≥30 days
- Bacterial meningitis, pneumonia, or sepsis (single episode)

- Candidiasis, oropharyngeal (thrush), persisting for >2 months in children aged >6 months
- Cardiomyopathy
- CMV infection, with onset before age 1 month
- · Diarrhea, recurrent or chronic
- Hepatitis
- HSV stomatitis, recurrent (more than two episodes within 1 year)
- HSV bronchitis, pneumonitis, or esophagitis with onset before age 1 month
- Herpes zoster (shingles) involving at least two distinct episodes or more than one dermatome
- Leiomyosarcoma
- Lymphoid interstitial pneumonia or pulmonary lymphoid hyperplasia complex
- Nephropathy
- Nocardiosis
- Persistent fever (lasting >1 month)
- Toxoplasmosis, onset before age 1 month
- Varicella, disseminated (complicated chickenpox)

# **AIDS-Defining Conditions**

- Bacterial infections, multiple or recurrent<sup>a</sup>
- Candidiasis of bronchi, trachea, or lungs
- · Candidiasis of esophagus
- · Cervical cancer, invasive
- · Coccidioidomycosis, disseminated or extrapulmonary
- Cryptococcosis, extrapulmonary
- Cryptosporidiosis, chronic intestinal (>1-month duration)
- CMV disease (other than liver, spleen, or lymph nodes), onset at age >1 month
- CMV retinitis (with loss of vision)
- Encephalopathy attributed to HIV<sup>b</sup>
- HSV: chronic ulcers (>1-month duration) or bronchitis, pneumonitis, or esophagitis (onset at age >1 month)
- Histoplasmosis, disseminated or extrapulmonary
- Isosporiasis, chronic intestinal (>1-month duration)
- Kaposi sarcoma
- Lymphoma, Burkitt (or equivalent term)
- Lymphoma, immunoblastic (or equivalent term)
- Lymphoma, primary (of brain)
- Mycobacterium avium complex or Mycobacterium kansasii, disseminated or extrapulmonary

- Mycobacterium tuberculosis of any site, pulmonary, disseminated, or extrapulmonary
- Mycobacterium, other species or unidentified species, disseminated or extrapulmonary
- Pneumocystis jirovecii (previously known as Pneumocystis carinii) pneumonia
- Pneumonia, recurrent<sup>c</sup>
- Progressive multifocal leukoencephalopathy
- Salmonella septicemia, recurrent
- Toxoplasmosis of brain, onset at age >1 month
- Wasting syndrome attributed to HIV<sup>b</sup>

Centers for Disease Control and Prevention. 1994 Revised classification system for human immunodeficiency virus infection in children less than 13 years of age. *MMWR*. 1994;43(No. RR-12).

Centers for Disease Control and Prevention. 1993 Revised classification system for HIV infection and expanded surveillance case definition for AIDS among adolescents and adults. *MMWR*. 1992;41(No. RR-17).

<sup>c</sup> Only among adults, adolescents, and children aged ≥6 years.

Key: CMV = cytomegalovirus; HSV = herpes simplex virus

### Modified from:

Centers for Disease Control and Prevention. 1994 revised classification system for human immunodeficiency virus infection in children less than 13 years of age. *MMWR*. 1994;43(No. RR-12).

Centers for Disease Control and Prevention: Revised Surveillance Case Definition for HIV Infection—United States, 2014. MMWR. 2014;63(No. RR-3):1-10.

<sup>&</sup>lt;sup>a</sup> Only among children aged <6 years.

<sup>&</sup>lt;sup>b</sup> Suggested diagnostic criteria for these illnesses, which might be particularly important for HIV encephalopathy and HIV wasting syndrome, are described in the following references: