



## Revised pediatric HIV classification system

In the fall of 1994, a new classification system<sup>1</sup> for pediatric HIV replaced the 1987 system.<sup>2</sup> The new system is summarized in Tables 1 and 2<sup>1</sup>. Table 3<sup>1</sup> compares the 1987 and 1994 systems.

### Clinical categories for children with HIV infection

#### Category N: Not symptomatic

Children who have no signs or symptoms considered to be the result of HIV infection or who have only one of the conditions listed in category A are defined as category N.

#### Category A: Mildly symptomatic

Category A comprises children with two or more of the conditions listed below but none of the conditions listed in categories B and C.

- Lymphadenopathy ( $\geq 0.5$  cm at more than two sites; bilateral = one site)
- Hepatomegaly
- Splenomegaly
- Dermatitis
- Parotitis
- Recurrent or persistent upper respiratory infection, sinusitis, or otitis media.

#### Category B: Moderately symptomatic

Category B consists of children who have symptomatic conditions other than those listed for category A

or C that are attributed to HIV infection. Examples of conditions in clinical category B include but are not limited to:

- Anemia ( $< 8$  gm/dL), neutropenia ( $< 1,000/mm^3$ ), or thrombocytopenia ( $< 100,000/mm^3$ ) persisting  $\geq 30$  days
- Bacterial meningitis, pneumonia, or sepsis (single episode)
- Candidiasis, oropharyngeal (thrush), persisting ( $> 2$  months) in children  $> 6$  months of age
- Cardiomyopathy
- Cytomegalovirus infection, with onset before 1 month of age
- Diarrhea, recurrent or chronic
- Hepatitis
- Herpes simplex virus (HSV) stomatitis, recurrent (more than two episodes within 1 year)
- HSV bronchitis, pneumonitis, or esophagitis with onset before 1 month of age
- Herpes zoster (shingles) involving at least two distinct episodes or more than one dermatome
- Leiomyosarcoma
- Lymphoid interstitial pneumonia (LIP) or pulmonary lymphoid hyperplasia complex
- Nephropathy
- Nocardiosis
- Persistent fever (lasting  $> 1$  month)
- Toxoplasmosis, onset before 1 month of age
- Varicella, disseminated (complicated chicken pox)

#### Category C: Severely symptomatic

- Serious bacterial infections, multiple or recurrent (i.e., a combination of at least two culture-confirmed infections within a 2-year period), of the following types: septicemia, pneumonia, meningitis, bone or joint infection, or abscess of an internal organ or body cavity (excluding otitis media, superficial skin or mucosal abscesses, and indwelling catheter-related infections)

TABLE 1. PEDIATRIC HIV CLASSIFICATION\*

Immunologic Category	Clinical Categories			
	N: No Signs/Symptoms	A: Mild Signs/Symptoms	B: Moderate Signs/Symptoms <sup>†</sup>	C: Severe Signs/Symptoms <sup>†</sup>
1: No evidence of suppression	N1	A1	B1	C1
2: Evidence of moderate suppression	N2	A2	B2	C2
3: Severe suppression	N3	A3	B3	C3

\* Children whose HIV infection status is not confirmed are classified by using the above grid with a letter E (for perinatally exposed) placed before the appropriate classification code (e.g; EN2).

<sup>†</sup> Both category C and lymphoid interstitial pneumonitis in category B are reportable to state and local health departments as AIDS.

**TABLE 2. IMMUNOLOGIC CATEGORIES BASED ON AGE-SPECIFIC CD4+ T-LYMPHOCYTE COUNTS AND PERCENT OF TOTAL LYMPHOCYTES**

Immunologic Category	Age of Child					
	< 12 Months		1-5 Years		6-12 Years	
	$\mu\text{L}$	(%)	$\mu\text{L}$	(%)	$\mu\text{L}$	(%)
1: No evidence of suppression	$\geq 1500$	( $\geq 25$ )	$\geq 1000$	( $\geq 25$ )	$\geq 500$	( $\geq 25$ )
2: Evidence of moderate suppression	750-1499	(15-24)	500-999	(15-24)	200-499	(15-24)
3: Severe suppression	< 750	(< 15)	< 500	(< 15)	< 200	(< 15)

**TABLE 3. COMPARISON OF THE 1987 AND 1994 PEDIATRIC HIV CLASSIFICATION SYSTEMS**

1987 Classification	1994 Classification
P-0	Prefix "E"
P-1	N
P-2A	A, B, and C
P-2B	C
P-2C	B
P-2D1	C
P-2D2	C
P-2D3	B
P-2E1	C
P-2E2	B

- Candidiasis, esophageal or pulmonary (bronchi, trachea, lungs)
- Coccidioidomycosis, disseminated (at site other than or in addition to lungs or cervical or hilar lymph nodes)
- Cryptococcosis, extrapulmonary
- Cryptosporidiosis or isosporiasis with diarrhea persisting > 1 month
- Cytomegalovirus disease with onset of symptoms at age > 1 month; (at site other than liver, spleen, or lymph nodes)
- Encephalopathy (at least one of the following progressive findings present for at least 2 months in the absence of a concurrent illness other than HIV infection that could explain the findings):
  1. Failure to attain or loss of developmental milestones or loss of intellectual ability, verified by standard developmental scale or neuropsychological tests
  2. Impaired brain growth or acquired microcephaly demonstrated by head circumference measurements or brain atrophy demonstrated by computerized tomography or magnetic resonance imaging (serial imaging is required for children < 2 years of age)
  3. Acquired symmetric motor deficit manifested by two or more of the following: paresis, pathologic reflexes, ataxia, or gait disturbance
- Herpes simplex virus infection causing a mucocutaneous ulcer that persists for > 1 month; or bronchitis, pneumonitis, or esophagitis for any duration affecting a child > 1 month of age
- Histoplasmosis, disseminated at (site other than or in addition to lungs or cervical or hilar lymph nodes)
- Kaposi's sarcoma
- Lymphoma, primary, in brain
- Lymphoma, small noncleaved cell (Burkitt's), or

- immunoblastic or large cell lymphoma of b-cell or unknown immunologic phenotype
- Mycobacterium tuberculosis, disseminated or extrapulmonary
- Mycobacterium, other species or unidentified species, disseminated (at site other than or in addition to lungs, skin, or cervical or hilar lymph nodes)
- Mycobacterium avium complex or Mycobacterium kansasii, disseminated (at site other than or in addition to lungs, skin or cervical or hilar lymph nodes)
- Pneumocystis carinii pneumonia
- Progressive multifocal leukoencephalopathy
- Salmonella (nontyphoid) septicemia, recurrent
- Toxoplasmosis of the brain with onset at > 1 month of age
- Wasting syndrome in the absence of a concurrent illness other than HIV infection, which could explain the following findings:
  1. Persistent weight loss > 10% of baseline, or
  2. Downward crossing of at least two of the following percentile lines on the weight-for-age chart (e.g., 95th, 75th, 60th, 25th, 6th) in a child  $\geq 1$  year of age, or
  3. < 5th percentile on weight-for-height chart on two consecutive measurements  $\geq 30$  days apart,
 plus
  1. Chronic diarrhea (i.e., at least two loose stools per day for  $\geq 30$  days), or
  2. Documented fever ( $\geq 30$  days, intermittent or constant).

Excerpted from Morbidity and Mortality Weekly Report.<sup>1, 2</sup>

1. Centers for Disease Control and Prevention. Diagnosing HIV Infection in Children. MMWR 43:2-9, 1994.
2. Centers for Disease Control and Prevention. Classification system for human immunodeficiency virus (HIV) infection in children under 13 years of age. MMWR 36:225-30, 1987.