

06-ID-02

Committee: Infectious Disease

Title: Revision of the Surveillance Case Definition for HIV Infection and AIDS Among children age \geq 18 months but $<$ 13 years

Statement of problem:

Advances in HIV diagnostic methods continue to have major impacts on clinical care decisions by HIV providers, and also on surveillance case definitions and the number of cases identified. In 2005, CSTE published a position statement that recommended a small change in the surveillance case definitions for HIV and AIDS for persons age \geq 13 years. That revision reflected the improved accuracy and widespread availability of viral detection and antibody tests to diagnose HIV infections. The 2005 revision required the demonstration of the presence of HIV infection by laboratory methods for both the HIV and AIDS case definitions. The diagnosis of AIDS-defining conditions alone would no longer be sufficient (see CSTE position statement 05-ID-04, *Revision of Surveillance Case Definition for AIDS among adults and adolescents \geq 13 years of age*, accessible on the web at <http://www.cste.org/PS/2005pdf/fina12005/05-ID-04final.pdf>).

The purpose of this recommended revision is to harmonize the AIDS and HIV case definitions for persons \geq 18 months with the definitions recommended for adults and adolescents in 2005.

The HIV surveillance case definition of 1999 (1) allows a subset of children age \geq 18 months but $<$ 13 years without evidence of laboratory-confirmed HIV infection to satisfy the surveillance case definition for HIV and AIDS. When CSTE published the proposed revision in 2005, we did not consider extending the criteria for laboratory diagnosis of HIV among persons age 18 months through 12 years. The revised criteria appearing in Appendix A of the current position statement include a requirement that all children age \geq 18 months but $<$ 13 years have laboratory confirmation of an HIV infection in order to meet the surveillance case definition for HIV and AIDS. These criteria are identical to those detailed in the previous CSTE Position Statement 05-ID-04 for persons \geq 13 years of age.

Statement of desired action to be taken:

CSTE recommends that CDC adopt the new HIV and AIDS surveillance case definitions for children age \geq 18 months but $<$ 13 years, as presented in Appendix A.

Public health impact:

All criteria for reportable HIV infection among persons age \geq 18 months will appear under one unified case definition. The proposed HIV surveillance case definition will exclude patients without evidence of laboratory-confirmed HIV infection. In addition, a separate AIDS case definition will require the presence of a laboratory-confirmed HIV infection for cases age $<$ 13 years. (See Section II of Appendix A). This is due to the differences in the clinical and laboratory indicators of severe immunosuppression in children as compared to adolescents and adults. The impact of the revision as it applies to children \geq 18 months to $<$ 13 year of age include:

- a) Increases specificity of the HIV and AIDS surveillance case definitions by excluding patients without evidence of laboratory-confirmed HIV infection. This reduces erroneous diagnoses and case investigations.
- b) Simplifies and clarifies the public health message that HIV is the etiology of AIDS.

The proposed surveillance case definitions are used for surveillance classification purposes and statistical reporting and should not be used to guide clinical practice.

Effects of revisions on HIV/AIDS surveillance data:

The improvement in the specificity of this revised case definition may result in a small decrease in the number of cases initially reported with HIV and AIDS in this age group.

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Attachment: Appendix A: Proposed surveillance case definition for HIV infection and AIDS for children age ≥ 18 months but < 13 years

Appendix A
***Proposed Surveillance Case Definition for HIV Infection and AIDS
For Children Age ≥ 18 months but < 13 years***

These revised definitions of HIV infection supersede those published in 1999 (1), apply to any variant of HIV (e.g., HIV-1 and HIV-2), and are intended for public health surveillance only. These definitions are not presented as a guide to clinical diagnosis or for other uses.

The revised laboratory criteria for reportable HIV infection among persons aged ≥ 18 months but < 13 years excludes confirmation of HIV infection through diagnosis of AIDS-defining conditions alone. Evidence of laboratory-confirmed HIV infection is now required for all reported cases of HIV infection in this age group.

I. Children aged greater than or equal to 18 months and less than 13 years[†] will be categorized for surveillance purposes as "HIV infected" if the child meets at least one of the following criteria:

Laboratory Criteria

Positive result on a screening test for HIV antibody (e.g., repeatedly reactive enzyme immunoassay), followed by a positive result on a confirmatory (sensitive and more specific) test for HIV antibody (e.g., Western blot or immunofluorescence antibody test)

or

Positive result of a detectable quantity on any of the following HIV virologic (nonantibody) tests:

- HIV nucleic acid (DNA or RNA) detection (e.g., DNA polymerase chain reaction [PCR] or plasma HIV-1 RNA)[‡]
- HIV p24 antigen test, including neutralization assay
- HIV isolation (viral culture)

OR

Clinical or Other Criteria (if the above laboratory criteria are not met)

Diagnosis of HIV infection, based on the laboratory criteria above, that is documented in a medical record by a physician

II. In children age ≥ 18 months and < 13 years, a reportable case of AIDS must meet criteria for a case of HIV infection (above at I) *plus* at least one of the following AIDS Indicator Conditions.

Diagnosis of an AIDS Indicator Condition:

The expanded definition retains the 24 clinical conditions in the AIDS surveillance case definitions published in 1987 (2) and 1993 (3) in children < 13 years of age. Definitive diagnostic methods for these conditions are detailed in the 1987 and 1994 MMWR case definition supplement and recommendations (2), (3). Because all AIDS diagnoses now require evidence of laboratory confirmed HIV infection, the additional presence of any disease listed below indicates a diagnosis of AIDS. Guidance on diagnosis of these diseases in the context of all nationally notifiable diseases is available at http://www.cdc.gov/epo/dphsi/casedef/case_definitions.htm .

- Any of the following diagnoses (asterisk indicates conditions that may be diagnosed presumptively)
 - Bacterial infections, multiple or recurrent (including Salmonella septicemia)
 - Candidiasis of bronchi, trachea, or lungs
 - Candidiasis, esophageal*
 - Coccidioidomycosis, disseminated or extrapulmonary
 - Cryptococcosis, extrapulmonary
 - Cryptosporidiosis, chronic intestinal (greater than 1 month's duration)
 - Cytomegalovirus disease (other than liver, spleen, or nodes) onset at >1 month of age
 - Cytomegalovirus retinitis (with loss of vision)*
 - Encephalopathy, HIV-related
 - Herpes simplex: chronic ulcer(s) (greater than 1 month's duration); or bronchitis, pneumonitis, or esophagitis, onset at >1 month of age
 - Histoplasmosis, disseminated or extrapulmonary
 - Isosporiasis, chronic intestinal (greater than 1 month's duration)
 - Kaposi's sarcoma*

- Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia*
- Lymphoma, Burkitt's (or equivalent term)
- Lymphoma, immunoblastic (or equivalent term)
- Lymphoma, primary, of brain
- Mycobacterium avium complex or M. kansasii, disseminated or extrapulmonary*
- Mycobacterium tuberculosis, any site (pulmonary* or extrapulmonary*)
- Mycobacterium, other species or unidentified species, disseminated or extrapulmonary*
- Pneumocystis carinii pneumonia*
- Progressive multifocal leukoencephalopathy
- Toxoplasmosis of brain, onset at > 1 month of age*
- Wasting syndrome due to HIV

† Children aged greater or equal to 18 months but less than 13 years are categorized as “uninfected with HIV” if they meet the criteria for “uninfected with HIV” for children less than 18 months in Appendix A of Position Statement # f##-ID-##1.

‡ In adults, adolescents, and children infected by other than perinatal exposure, plasma viral RNA nucleic acid tests should **NOT** be used in lieu of licensed HIV antibody screening tests (e.g., repeatedly reactive enzyme immunoassay). In addition, a negative (i.e., undetectable) plasma HIV-1 RNA test result does not rule out the diagnosis of HIV infection.

Reference List

- (1) CDC. Guidelines for national human immunodeficiency virus case surveillance, including monitoring for human immunodeficiency virus

infection and acquired immunodeficiency syndrome. MMWR
1999;48(No. RR-13):1-32

(2) Centers for Disease Control and Prevention. Revision of the CDC
Surveillance Case Definition for Acquired Immunodeficiency Syndrome.
MMWR 1987;36(suppl no. 1S):4S-6S.

(3) CDC. 1994 Revised classification system for human
immunodeficiency virus infection in children less than 13 years of age.
MMWR 1994; 43