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Revised Surveillance Case Definitions for HIV Infection   
Among Adults, Adolescents, and Children Aged <18 Months and for   
HIV Infection and AIDS Among Children Aged 18 Months to   
<13 Years --- United States, 2008  
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Revised Surveillance Case Definitions for HIV Infection   
Among Adults, Adolescents, and Children Aged <18 Months and for   
HIV Infection and AIDS Among Children Aged 18 Months to   
<13 Years --- United States, 2008  
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Summary  
For adults and adolescents (i.e., persons aged  
>  
13 years), the human immunodeficiency virus (HIV) infection   
classification system and the surveillance case definitions for HIV infection and acquired immunodeficiency syndrome (AIDS) have   
been revised and combined into a single case definition for HIV infection (1--  
3  
). In addition, the HIV infection case definition   
for children aged <13 years and the AIDS case definition for children aged 18 months to <13 years have been revised (1,  
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,  
4  
).   
No changes have been made to the HIV infection classification system (  
4  
), the 24 AIDS-defining conditions (1,  
4  
) for children   
aged <13 years, or the AIDS case definition for children aged <18 months. These case definitions are intended for public   
health surveillance only and not as a guide for clinical diagnosis. Public health surveillance data are used primarily for monitoring   
the HIV epidemic and for planning on a population level, not for making clinical decisions for individual patients. CDC and   
the Council of State and Territorial Epidemiologists recommend that all states and territories conduct case surveillance of   
HIV infection and AIDS using the 2008 surveillance case definitions, effective immediately.  
Introduction  
Since the beginning of the human immunodeficiency virus (HIV) epidemic, case definitions for HIV infection and   
acquired immunodeficiency syndrome (AIDS) have undergone several revisions to respond to diagnostic and therapeutic advances   
and to improve standardization and comparability of surveillance data regarding persons at all stages of HIV disease. HIV testing   
is now widely available, and diagnostic testing has continued to improve; these changes are reflected in the 2008 revised   
case definition for HIV infection, which now requires laboratory-confirmed evidence of HIV infection to meet the case   
definition among adults, adolescents, and children aged 18 months to <13 years.  
Methods  
CDC collaborated with the Council of State and Territorial Epidemiologists (CSTE) to develop the revisions in this   
report. CDC obtained additional input through consultations regarding the pediatric case definitions (April 2005) and adult   
and adolescent case definition (August 2005 and June 2006) and through peer review by health-care professionals, in   
compliance with the Office of Management and Budget requirements for the dissemination of influential scientific information.  
Adults and Adolescents  
For adults and adolescents (aged  
>  
13 years), the case definitions for HIV infection and AIDS have been revised into a   
single case definition for HIV infection that includes AIDS and incorporates the HIV infection classification system.   
Laboratory-confirmed evidence of HIV infection is now required to meet the surveillance case definition for HIV infection,   
including   
  
stage 3 HIV infection (AIDS). Diagnostic confirmation of an AIDS-defining condition alone (  
Appendix A  
),   
without laboratory-confirmed evidence of HIV infection, is no longer sufficient to classify an adult or adolescent as HIV infected   
for surveillance purposes. The 2007 World Health Organization (WHO) revised surveillance case definition for HIV   
infection also requires laboratory confirmation of HIV infection (  
Appendix B  
).  
Historically, the case definition for AIDS included adults and adolescents without laboratory-confirmed evidence of   
HIV infection if other clinical criteria were met. In 1993, the existing case definition for AIDS   
(  
1  
)  
was expanded to include 1) all HIV-infected persons with a CD4+ T-lymphocyte count of <200   
cells/  
µ  
L or  
a CD4+ T-lymphocyte percentage of   
total lymphocytes of <14 and 2) three additional clinical conditions (pulmonary tuberculosis, recurrent pneumonia, and   
invasive cervical cancer), in addition to retaining the 23 clinical conditions in the previous AIDS case definition   
(  
2  
). Despite these changes, the case definition for AIDS continued to include a subset of adults and adolescents without   
laboratory-confirmed evidence of HIV infection whose illness still met the surveillance case definition for AIDS. Illness in a person who did   
not have any other known cause of immunodeficiency met the surveillance case definition for AIDS if the illness met any of   
the following three criteria: 1) no laboratory testing performed or inconclusive laboratory evidence of HIV infection but   
a definitive diagnosis of a condition included in a subset of AIDS-defining conditions, 2) negative laboratory results for   
HIV infection but a definitive diagnosis of  
Pneumocystis   
jirovecii  
pneumonia, or 3) negative laboratory results for HIV infection   
but a definitive diagnosis of a condition included in a subset of AIDS-defining conditions and a CD4+ T-lymphocyte count   
of <400 cells/  
µ  
L. Because of improvements in diagnostic capabilities and treatment, including increased use of new   
HIV-testing technologies, CDC collaborated with CSTE to recommend in 2005 an interim change in the AIDS case definition,   
which required laboratory confirmation of HIV infection. This recommended change required laboratory-confirmed evidence   
of HIV infection in addition to a CD4+ T-lymphocyte count of <200   
cells/  
µ  
L,  
a CD4+ T-lymphocyte percentage of   
total lymphocytes of <14, or diagnosis of an AIDS-defining condition   
(  
5  
). This CDC/CSTE interim recommendation has   
been incorporated into the 2008 HIV infection case definition, which includes AIDS (stage 3).  
In 1993, the revised classification system for HIV infection and the expanded AIDS surveillance case definition for   
adults and adolescents were based on three clinical categories (i.e., A, B, and C) and three ranges of CD4+ T-lymphocyte counts   
(i.e.,  
>  
500 cells/  
µ  
L, 200--499   
cells/  
µ  
L, and <200   
cells/  
µ  
L) or the concordant CD4+ T-lymphocyte percentages   
(  
2  
). Clinical category A comprised asymptomatic acute or primary HIV infection or persistent generalized lymphadenopathy.   
Clinical category B comprised symptomatic conditions in an HIV-infected adult or adolescent that were not included in   
clinical categories A or C but were attributed to a cell-mediated immunity defect or for which the clinical course or management   
was complicated by HIV infection. Clinical category C comprised the 26 AIDS-defining conditions. In the context of   
treatment and diagnostic improvements since 1993, clinical categories A and B pose particular difficulties because they include   
many conditions that are not discrete diseases, are not necessarily indicators of immunodeficiency, poorly match current   
treatment guidelines, and are not integrated into routine surveillance practices. The classification system of the 2008 case definition   
for HIV infection, which includes AIDS, has been simplified, with less emphasis on clinical conditions by elimination of   
clinical categories A and B while retaining the 26 AIDS-defining conditions in clinical category C   
(  
1,  
2  
).  
The role of CD4+ T-lymphocyte counts and percentages also has been clarified. The 2008 case definition highlights   
the central role of the CD4+ T-lymphocyte counts and percentages, which are objective measures of immunosuppression that   
are routinely used in the care of HIV-infected persons and are available to surveillance programs. The three CD4+   
T-lymphocyte count categories have been renamed for HIV infection, increasing in severity from stage 1 through stage 3 (AIDS);   
an unknown stage also is included. For surveillance purposes, HIV disease progression is classified from less to more severe;   
once cases are classified into a surveillance severity stage, they cannot be reclassified into a less severe stage.  
Children  
Aged <18 Months  
The 1999 surveillance guidelines recommended four categories of HIV infection for children aged <18 months:   
definitively HIV infected, presumptively HIV infected, definitively uninfected with HIV, and presumptively uninfected with HIV   
(  
3  
). Because of improved accuracy and the widespread availability of viral detection and antibody tests to diagnose HIV   
infection,   
  
changes have been made in the surveillance case definition of presumptively uninfected with HIV for children aged   
<18 months at the time of diagnosis   
(  
1,  
3  
,  
4  
). Thus, compared with infants categorized using the previous surveillance   
case definition, fewer HIV-exposed infants who have a very low probability of infection will be categorized as having   
indeterminate infections (  
3  
). No major revisions have been made to the remaining three categories for children aged <18 months, and   
no changes have been made to the AIDS surveillance case definition for children in this age group   
(  
1,  
3  
,  
4  
). Because of the greater uncertainty associated with diagnostic testing for HIV in this population (i.e., because maternal antibodies from the   
HIV-infected mother might exist in the infant after birth, possibly affecting HIV diagnostic testing of the infant that occurs   
soon after birth), children in this age group whose illness meets clinical criteria for the AIDS case definition but does not   
meet laboratory criteria for definitive or presumptive HIV infection are still categorized as HIV infected when the mother   
has laboratory-confirmed HIV infection.  
Aged 18 Months to <13 Years  
For children aged 18 months to <13 years, laboratory-confirmed evidence of HIV infection is now required to meet   
the surveillance case definition for HIV infection and AIDS. Diagnostic confirmation of an AIDS-defining condition   
alone, without laboratory-confirmed evidence of HIV infection, is no longer sufficient to classify a child as HIV infected   
for surveillance purposes (  
1,  
3  
,  
4  
). No changes have been made to the 24 AIDS-defining conditions   
(  
1,  
4  
)  
or the HIV infection classification system for children aged <13 years   
(  
4  
)  
.  
2008 Surveillance Case Definition for HIV Infection Among Adults   
and Adolescents  
The 2008 HIV infection case definition for adults and adolescents (aged  
>  
13 years) replaces the HIV infection and   
AIDS case definitions and the HIV infection classification system   
(  
1--  
3  
,5  
). The case definition is intended for public   
health surveillance only and not as a guide for clinical diagnosis. The definition applies to all HIV variants (e.g., HIV-1 or   
HIV-2) and excludes confirmation of HIV infection through diagnosis of AIDS-defining conditions alone. For surveillance   
purposes, a reportable case of HIV infection among adults and adolescents aged  
>  
13 years is categorized by increasing severity as stage   
1, stage 2, or stage 3 (AIDS) or as stage unknown (  
Table  
).  
Criteria for HIV Infection  
Laboratory Criteria  
Positive result from an HIV antibody screening test (e.g., reactive enzyme immunoassay [EIA]\*) confirmed by a positive result   
from a supplemental HIV antibody test (e.g., Western blot or indirect immunofluorescence assay test).  
or  
Positive result or report of a detectable quantity (i.e., within the established limits of the laboratory test) from any   
of the following HIV virologic (i.e., non-antibody)   
tests  
†  
:  
-- HIV nucleic acid (DNA or RNA) detection test (e.g., polymerase chain reaction [PCR])  
-- HIV p24 antigen test, including neutralization assay  
-- HIV isolation (viral culture)  
Other Criterion (for Cases that Do Not Meet Laboratory Criteria)  
HIV infection diagnosed by a physician or qualified medical-care   
provider  
§  
based on the laboratory criteria and   
documented in a medical record.  
¶  
Oral reports of prior laboratory test results are not acceptable.  
Case Classification  
A confirmed case meets the laboratory criteria for diagnosis of HIV infection and one of the four HIV infection stages   
(stage 1, stage 2, stage 3, or stage unknown) (  
Table  
). Although cases with no information on CD4+ T-lymphocyte count   
or percentage and no information on AIDS-defining conditions can be classified as stage unknown, every effort should be   
made to report CD4+ T-lymphocyte counts or percentages and the presence of AIDS-defining conditions at the time of   
diagnosis. Additional CD4+ T-lymphocyte counts or percentages and any identified AIDS-defining conditions can be reported   
as recommended (  
6  
).  
HIV Infection, Stage 1  
No AIDS-defining condition and either CD4+ T-lymphocyte count of  
>  
500 cells/  
µ  
L or CD4+ T-lymphocyte percentage   
of total lymphocytes of  
>  
29.  
HIV Infection, Stage 2  
No AIDS-defining condition and either CD4+ T-lymphocyte count of 200--499   
cells/  
µ  
L or CD4+ T-lymphocyte percentage   
of total lymphocytes of 14--28.  
HIV Infection, Stage 3 (AIDS)  
CD4+ T-lymphocyte count of <200   
cells/  
µ  
L or CD4+ T-lymphocyte percentage of total lymphocytes of <14   
or documentation of an AIDS-defining condition (  
Appendix A  
). Documentation of an AIDS-defining condition   
supersedes a CD4+ T-lymphocyte count of  
>  
200 cells/  
µ  
L and a CD4+ T-lymphocyte percentage of total lymphocytes of  
>  
14. Definitive diagnostic methods for these conditions are available in Appendix C of the 1993 revised HIV   
classification system and the expanded AIDS case definition   
(  
2  
) and from the National Notifiable Diseases Surveillance   
System (available at  
http://www.cdc.gov/epo/dphsi/casedef/case\_definitions.htm  
).  
HIV Infection, Stage Unknown  
No information available on CD4+ T-lymphocyte count or percentage and no information available on   
AIDS-defining conditions. (Every effort should be made to report CD4+ T-lymphocyte counts or percentages and the presence of   
AIDS-defining conditions at the time of diagnosis.)  
Discussion  
To meet the surveillance case definition for HIV infection among adults and adolescents, laboratory-confirmed evidence   
of HIV infection is required. The lowest CD4+ T-lymphocyte count (or concordant CD4+ T-lymphocyte percentage of   
total lymphocytes) or the presence of AIDS-defining conditions is used to determine the stage of infection. If the CD4+   
T-lymphocyte count and the CD4+ T-lymphocyte percentage are both available but do not correspond to the same   
severity stage, select the more severe stage. For surveillance purposes, disease progression is from less to more severe; once cases   
are classified in a more severe surveillance stage, they cannot be reclassified into a less severe surveillance stage.  
A diagnosis of acute HIV infection indicates documented evidence of detectable HIV RNA or DNA or of p24 antigen   
in plasma or serum in the presence of a documented negative or indeterminate result from an HIV antibody test.   
These laboratory tests should be conducted on the same specimen or on specimens obtained on the same day. Acute HIV   
infection occurs approximately during the time from viral acquisition until seroconversion (i.e., the development of measurable levels   
of HIV-specific antibodies). During this period, early immune responses to the virus produce distinctive characteristics; 40%   
to 80% of patients develop clinical symptoms of a nonspecific viral illness (e.g., fever, fatigue, or rash) typically lasting 1--2   
weeks (  
7--12  
). Acute HIV infection often is not detected because the date of HIV acquisition is unknown, no specific clinical   
signs are present, no single laboratory marker is present, and the diagnostic window is small. High viral loads typically are   
associated with acute HIV infection, potentially increasing the risk for transmission. CD4+ T-lymphocyte counts have decreased   
in certain patients with acute HIV infection, especially during the months immediately following viral acquisition   
(  
7,11,12  
). However, the viral load and CD4+ T-lymphocyte count usually stabilize once equilibrium is reached between HIV and   
the   
  
immune response (i.e., the viral set point). The changing CD4+ T-lymphocyte counts associated with acute HIV   
infection might have implications when using these counts to stage HIV infection for surveillance purposes; for example, persons   
might experience a particularly low, but temporary, CD4+ T-lymphocyte count and be categorized as having a more severe stage   
of HIV infection than they actually have after reaching the viral set point.  
2008 Surveillance Case Definition for HIV Infection Among Children   
Aged <18 Months  
The 2008 case definition of HIV infection among children aged <18 months replaces the definition published in 1999   
(  
3  
) and applies to all variants of HIV (e.g., HIV-1 or HIV-2). The 2008 definition is intended for public health surveillance   
only and not as a guide for clinical diagnosis.  
The 2008 definition takes into account new available testing technologies. Laboratory criteria for children aged <18   
months at the time of diagnosis include revisions to one category: presumptively uninfected with HIV. No substantial changes   
have been made to the remaining three categories (definitively HIV infected, presumptively HIV infected, and   
definitively uninfected with HIV), and no changes have been made to the conditions listed under the AIDS criteria in the 1987   
pediatric surveillance case definition for AIDS for children aged <18 months   
(  
1,  
3  
,13  
). Because diagnostic laboratory testing for   
HIV infection among children aged <18 months might be unreliable, children in this age group with perinatal HIV exposure   
whose illness meets the AIDS case definition on the basis of clinical criteria are considered presumptively HIV infected when   
the mother has laboratory-confirmed HIV infection. The definitive or presumptive exclusion of HIV infection for   
surveillance purposes does not mean that clinical HIV infection can be ruled out. For the purposes of calculating the exact timing of   
tests (e.g., when a specimen was obtained for laboratory testing) based on the surveillance case definition, 1 month corresponds   
to 30 days.  
Criteria for Definitive or Presumptive HIV Infection  
A child aged <18 months is categorized for surveillance purposes as definitively or presumptively HIV infected if born to   
an HIV-infected mother and if the laboratory criterion or at least one of the other criteria is met.  
Laboratory Criterion for Definitive HIV Infection  
A child aged <18 months is categorized for surveillance purposes as definitively HIV infected if born to an   
HIV-infected mother and the following laboratory criterion is met.  
Positive results on two separate specimens (not including cord blood) from one or more of the following HIV   
virologic (non-antibody) tests:  
-- HIV nucleic acid (DNA or RNA) detection\*\*  
-- HIV p24 antigen test, including neutralization assay, for a child aged  
>  
1 month  
-- HIV isolation (viral culture)  
Laboratory Criterion for Presumptive HIV Infection  
A child aged <18 months is categorized for surveillance purposes as presumptively HIV infected if 1) born to an   
HIV-infected mother, 2) the criterion for definitively HIV infected is not met, and 3) the following laboratory criterion is met.  
Positive results on one specimen (not including cord blood) from the listed HIV virologic tests (HIV nucleic acid   
detection test; HIV p24 antigen test, including neutralization assay, for a child aged  
>  
1 month; or HIV isolation [viral culture]   
for definitively HIV infected) and no subsequent negative results from HIV virologic or HIV antibody tests.  
Other Criteria (for Cases that Do Not Meet Laboratory Criteria for Definitive   
or Presumptive HIV Infection)  
HIV infection diagnosed by a physician or qualified medical-care provider based on the laboratory criteria and   
documented in a medical record. Oral reports of prior laboratory test results are not acceptable.  
or  
When test results regarding HIV infection status are not available, documentation of a condition that meets the criteria   
in the 1987 pediatric surveillance case definition for AIDS   
(  
1  
) (  
Appendix A  
).  
Criteria for Uninfected with HIV, Definitive or Presumptive  
A child aged <18 months born to an HIV-infected mother is categorized for surveillance purposes as either definitively   
or presumptively uninfected with HIV if 1) the criteria for definitive or presumptive HIV infection are not met and 2) at   
least one of the laboratory criteria or other criteria are met.  
Laboratory Criteria for Uninfected with HIV, Definitive  
A child aged <18 months born to an HIV-infected mother is categorized for surveillance purposes as definitively   
uninfected with HIV if 1) the criteria for definitive or presumptive HIV infection are not met and 2) at least one of the laboratory   
criteria or other criteria are met.  
††  
At least two negative HIV DNA or RNA virologic tests from separate specimens, both of which were obtained at age  
>  
1 month and one of which was obtained at age  
>  
4 months.  
or  
At least two negative HIV antibody tests from separate specimens obtained at age  
>  
6 months.  
and  
No other laboratory or clinical evidence of HIV infection (i.e., no positive results from virologic tests [if tests   
were performed] and no current or previous AIDS-defining condition) (  
Appendix A  
).  
Laboratory Criteria for Uninfected with HIV, Presumptive  
A child aged <18 months born to an HIV-infected mother is categorized for surveillance purposes as   
presumptively uninfected with HIV if 1) the criteria for definitively uninfected with HIV are not met and 2) at least one of the   
laboratory criteria are met.  
Two negative RNA or DNA virologic tests, from separate specimens, both of which were obtained at age  
>  
2 weeks and one of which was obtained at age  
>  
4 weeks.  
§§  
or  
One negative RNA or a DNA virologic test from a specimen obtained at age  
>  
8 weeks.  
or  
One negative HIV antibody test from a specimen obtained at age  
>  
6 months.  
or  
One positive HIV virologic test followed by at least two negative tests from separate specimens, one of which is a   
virologic test from a specimen obtained at age  
>  
8 weeks or an HIV antibody test from a specimen obtained at age  
>  
6 months.  
and  
No other laboratory or clinical evidence of HIV infection (i.e., no subsequent positive results from virologic tests if   
tests were performed, and no AIDS-defining condition for which no other underlying condition indicative   
of immunosuppression exists) (  
Appendix A  
).  
Other Criteria (for Cases that Do Not Meet Laboratory Criteria for Uninfected   
with HIV, Definitive or Presumptive)  
Determination of uninfected with HIV by a physician or qualified medical-care provider based on the laboratory   
criteria and who has noted the HIV diagnostic test results in the medical record. Oral reports of prior laboratory test results   
are not acceptable.  
and  
No other laboratory or clinical evidence of HIV infection (i.e., no positive results from virologic tests [if tests   
were performed] and no AIDS-defining condition for which no other underlying condition indicative of   
immunosuppression exists) (  
Appendix A  
).  
Criteria for Indeterminate HIV Infection  
A child aged <18 months born to an HIV-infected mother is categorized as having perinatal exposure with an   
indeterminate HIV infection status if the criteria for infected with HIV and uninfected with HIV are not met.  
Discussion  
The exclusion of HIV infection (definitive or presumptive) for surveillance purposes does not mean that clinical HIV infection   
can be ruled out. These categories are used for surveillance classification purposes and should not be used to guide clinical practice.   
A child with perinatal HIV exposure should continue to be monitored clinically according to nationally accepted treatment and   
care guidelines (  
17--19  
) to 1) monitor for potential complications of exposure to antiretroviral medications during the perinatal   
period and 2) confirm the absence of HIV infection with repeat clinical and laboratory evaluations.  
No changes have been made to the existing classification system for HIV infection among children aged <18 months   
(  
4  
). To classify HIV-infected children in this age group, use the 1994 revised classification system for HIV infection among   
children aged <13 years (  
4  
).  
2008 Surveillance Case Definitions for HIV Infection and AIDS   
Among Children Aged 18 Months to <13 Years  
These 2008 surveillance case definitions of HIV infection and AIDS supersede those published in 1987   
(  
1  
) and 1999 (  
3  
) and apply to all variants of HIV (e.g., HIV-1 or HIV-2). They are intended for public health surveillance only and are not   
a guide for clinical diagnosis.  
The 2008 laboratory criteria for reportable HIV infection among persons aged 18 months to <13 years   
exclude confirmation of HIV infection through the diagnosis of AIDS-defining conditions alone. Laboratory-confirmed evidence   
of HIV infection is now required for all reported cases of HIV infection among children aged 18 months to <13 years   
(  
20  
).  
Criteria for HIV Infection  
Children aged 18 months to <13 years  
are categorized as HIV infected for surveillance purposes if at least one of   
laboratory criteria or the other criterion is   
met.  
¶¶  
Laboratory Criteria  
Positive result from a screening test for HIV antibody (e.g., reactive EIA), confirmed by a positive result from   
a supplemental test for HIV antibody (e.g., Western blot or indirect immunofluorescence assay).  
or  
Positive result or a detectable quantity by any of the following HIV virologic (non-antibody) tests\*\*\*:  
-- HIV nucleic acid (DNA or RNA) detection (e.g., PCR)  
-- HIV p24 antigen test, including neutralization assay  
-- HIV isolation (viral culture)  
Other Criterion (for Cases that Do Not Meet Laboratory Criteria)  
HIV infection diagnosed by a physician or qualified medical-care provider based on the laboratory criteria and   
documented in a medical record. Oral reports of prior laboratory test results are not acceptable.  
Criteria for AIDS  
Children aged 18 months to <13 years are categorized for surveillance purposes as having AIDS if the criteria for   
HIV infection are met and at least one of the AIDS-defining conditions has been documented (  
Appendix A  
).  
The 2008 surveillance case definition for AIDS retains the 24 clinical conditions in the AIDS surveillance case   
definition published in 1987 (  
1  
) and revised in 1994   
(  
4  
) for children aged <13 years (  
Appendix A)  
. Because the 2008 definition   
requires that all AIDS diagnoses have laboratory-confirmed evidence of HIV infection, the presence of any AIDS-defining   
condition listed in Appendix A indicates a surveillance diagnosis of AIDS. Guidance on the 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  
.  
Discussion  
To meet the surveillance case definition for HIV infection, laboratory confirmation of HIV infection is now required   
for children aged 18 months to <13 years. To meet the surveillance case definition for AIDS, in addition to the presence of one   
or more AIDS-defining conditions, laboratory-confirmed evidence of HIV infection is now required for children aged 18   
months to <13 years. These revisions will increase the specificity of the HIV infection and AIDS surveillance case definitions   
by excluding patients without laboratory-confirmed evidence of HIV infection, reinforcing the public health message that   
HIV infection is the cause of AIDS. Improved specificity will provide more accurate data regarding number of HIV infection   
cases, which can be used to refine public health policies and determine appropriate use of HIV resources.  
No changes have been made to the existing classification system for HIV infection among children aged 18 months to   
<13 years (  
4  
). To classify HIV-infected children in this age group, refer to the 1994 revised classification system for HIV   
infection among children aged <13 years   
(  
4  
).  
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\* Rapid tests are EIAs that do not have to be repeated but require a confirmatory test if reactive. Most conventional EIAs require a repeatedly reactive EIA that   
is confirmed by a positive result with a supplemental test for HIV antibody. Standard laboratory testing procedures should always be followed.  
†  
For HIV screening, HIV virologic (non-antibody) tests should not be used in lieu of approved HIV antibody screening tests. A negative result (i.e.,   
undetectable or nonreactive) from an HIV virologic test (e.g., viral RNA nucleic acid test) does not rule out the diagnosis of HIV infection.  
§  
Qualified medical-care providers might differ by jurisdiction and might include physicians, nurse practitioners, physician assistants, or nurse midwives.  
¶  
An original or copy of the laboratory report is preferred; however, in the rare instance the laboratory report is not available, a description of the laboratory   
report results by a physician or qualified medical-care provider documented in the medical record is acceptable for surveillance purposes. Every effort should be made   
to obtain a copy of the laboratory report for documentation in the medical record.  
\*\*  
HIV nucleic acid (DNA or RNA) detection tests are the virologic methods of choice for the diagnosis or exclusion of infection in children aged <18   
months. Although HIV culture can be used, culture is less standardized and less sensitive than nucleic acid detection tests. The use of p24 antigen testing to exclude infection   
in children aged <18 months is not recommended because of poor sensitivity, especially in the presence of HIV antibody. Commercial tests for RNA and DNA detection   
have become widely available. Quantitative RNA tests have been approved by the Food and Drug Administration (FDA) for monitoring HIV infection, and qualitative   
RNA tests have been approved to aid diagnosis. The quantitative and qualitative RNA tests meet FDA standards for high analytic and clinical sensitivity and specificity   
(  
14--16  
). All available tests detect the subtypes of group M and strains of group O. HIV-2 can be diagnosed with HIV-2 DNA PCR. HIV RNA tests sometimes do not detect   
HIV-2 because the viral loads in some HIV-2--infected persons are below detectable levels. Because of the possibility of mutation or recombination involving the   
sequences detected by a particular test, occasionally, virus might not be detected in a specimen from an HIV-2 infected individual. If HIV-2 infection seems likely but results   
are negative, testing with a different assay might be advisable.  
††  
Suspected cases of HIV infection among children aged <18 months who are born to a documented HIV-uninfected mother should be assessed on a   
case-by-case basis by the appropriate health care and public health specialists.  
§§  
If specimens for both negative RNA or DNA virologic tests are obtained at age  
>  
4 weeks, specimens should be obtained on separate days.  
¶¶  
Children aged 18 months to <13 years with perinatal exposure to HIV are categorized as uninfected with HIV if the criteria for uninfected with   
HIV among children aged <18 months are met.  
\*\*\* For HIV screening among children aged 18 months to <13 years infected through exposure other than perinatal exposure, HIV virologic (non-antibody)   
tests should not be used in lieu of approved HIV antibody screening tests. A negative result (i.e., undetectable or nonreactive) by an HIV virologic test (e.g., viral RNA   
nucleic acid test) does not rule out the diagnosis of HIV infection.  
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