

Recommendations

IT IS recommended that the case definition for the diagnosis of AIDS used by the Centers for Disease Control (CDC) is adopted.

CDC definition for the diagnosis of AIDS

For the limited purposes of epidemiologic surveillance, a case of 'the acquired immune deficiency syndrome', also known as AIDS, will consist of a person who has had:

- I. a reliably diagnosed disease that is at least moderately indicative of an underlying deficiency in cellular immunity,

but who, in addition, has had:

- II. no known underlying cause of cellular immune deficiency nor any other cause of reduced resistance reported to be associated with his or her disease.

The adoption of this definition shall ensure a uniform collection and reporting of data which will then be comparable to data from the U.S.A. (A fuller interpretation of this definition is presented in Appendix 1.)

It is recognized that this definition does not include the evaluation of specific laboratory tests, nor does it refer to so-called 'risk groups'.

It must be emphasized that this definition does not preclude the need for a careful and comprehensive clinical evaluation of cellular immunity in patients under observation.

From clinical and epidemiological observations the suggestion is derived that AIDS may in some cases be preceded by a syndrome characterized by lymphadenopathy, intermittent or continuous fever, unexplained weight loss and malaise. At the present time the relationship of this syndrome to AIDS remains unclear. This syndrome has occasionally been described as 'pre-AIDS' or 'AIDS-related complex'. This designation infers a relationship that remains to be established. Further investigations, especially

prospective epidemiological studies, are necessary before a final conclusion can be reached. For this purpose a working definition of the syndrome has been developed by NIH, CDC and clinical investigators in the U.S.A. This working definition is given in Appendix 2.

From the beginning of the epidemic it was observed that distribution of disease and patterns of spread resemble those of hepatitis B virus infections. The putative agent is most likely transmitted by direct intimate contact involving mucosal surfaces or through parenteral spread. It is therefore not surprising that certain groups in the population are at a higher risk of contracting AIDS than others. Mention must be made in this context of male homosexuals, i.v. drug abusers and recipients of coagulation factor concentrates.

Subsequent to the recognition of AIDS as a clinical entity, it has been learned that a similar or identical disease is seen in residents and/or natives from Central Africa and the Caribbean Islands. While such cases fit the CDC definition as given above, it remains to be established unequivocally that there is a connection between these cases and AIDS.

INFORMATION AND ADVICE TO PHYSICIANS

It is recommended that special efforts be made to inform the medical profession about the emergence of the infectious disease, AIDS. This comprehensive information should include a description of AIDS, a list of useful diagnostic procedures and a list of hospitals experienced in treating AIDS and of laboratories that perform the necessary special immunological or serological tests.

Due to the nature of the disease and the prevalence of AIDS in certain groups, AIDS patients will be seen by general practitioners or specialists in hematology, dermatology, venereal diseases, proctology, urology or infectiology, or by those who care for hemophiliacs. Those physicians should be informed about AIDS via their professional organizations and be provided with registration forms.

It is mandatory that all physicians receive information on infection control measures in handling AIDS patients and material from such patients. In general, measures consistent with

those for the prevention of accidental infections with hepatitis B virus should be followed [1-3]. An example for such information is given in Appendix 3. A list of consultants who are familiar with AIDS should be assembled and published for different regions.

INSTITUTION OF A SYSTEM THAT ENSURES CASE IDENTIFICATION AND NOTIFICATION TO THE APPROPRIATE AUTHORITIES

Case identification will be made on the local level by practitioners and/or in hospitals. The form of the case reports used for AIDS should be ideally the same in all member countries. It should contain at least the following information:

Date of report

Code allowing identification of patient by the reporting physician

Age

Sex

Date and place of birth

Place of residence

Primary disease: e.g. Kaposi's sarcoma, Pneumocystis carinii pneumonia, etc.

Onset of symptoms of primary disease

Signs and date of onset of possibly AIDS-related symptoms

Social and risk factors: e.g. marital status, travel history, contacts with AIDS patients, factor VIII recipient, etc.

Some countries may decide to collect additional data, e.g. on ethnic origin, nationality, date of entry into the country of residence, course of the disease, significant laboratory data, etc.

In all cases the right of privacy of the individual must be safeguarded.

Such reports should be collected, evaluated and published either by central public health authorities that survey communicable diseases or by specially created national AIDS surveillance units.

ADVICE TO THE PUBLIC

It is not surprising that AIDS has attracted great public interest. The rights of the public to be informed must be respected. Therefore all pertinent information should be made available using established channels of communication. At the same time all appropriate authorities, physicians and researchers are urged to make sure that their statements to the press cannot be misinterpreted or abused.

On the basis of the presently available

information, advice to the public in Europe could read as follows:

The acquired immune deficiency syndrome (AIDS) has in the last years been recognized as an infectious disease. It was first seen in the U.S.A., where now more than 2000 persons have been afflicted with AIDS. AIDS has also been diagnosed in Europe. The number of cases is increasing, reaching 268 in October 1983.

The person-to-person spread of AIDS requires intimate sexual contact. AIDS may be transmitted in rare cases by blood that is contaminated with the infectious agent. Vehicles for such contaminated blood are in most instances soiled injection needles exchanged by drug abusers.

Cases of AIDS have been observed among recipients of coagulation factors prepared from the blood of several thousand different donors. Such preparations are administered to patients with rare bleeding disorders. As a consequence the rules for the selection of blood donors have been altered in order to prevent the collection of blood that may contain the AIDS agent.

Although AIDS has been recognized only recently, enough information has been gathered to state that AIDS poses no risk to the public at large. Casual or social contacts with AIDS patients, e.g. in subways, restaurants, lavatories or private homes, carry no risk of contracting AIDS.

Worldwide special efforts are being made to uncover the causative agent and to develop effective therapeutics and means of prevention.

ADVICE TO MALE HOMOSEXUALS

Male homosexual citizens have a higher than average risk of contracting AIDS. They must be made aware that, besides the well-known risks of a promiscuous homosexual lifestyle, such as venereal diseases, amoebiasis, hepatitis B and genital Herpes simplex, the newly recognized acquired immune deficiency syndrome (AIDS) poses a great threat to their well being or life.

Due to the fact that the incubation period may last more than 2 yr, and that diagnostic tools to detect already infected but still healthy persons, who nevertheless may transmit the disease, are lacking, the risk of contracting AIDS is high for promiscuous homosexuals. The conclusions and the advice to be derived from the presently available information are self-evident. Organizations representing the gay community strongly urge a cutdown in the number of different sexual contacts. This advice must be considered to be the best preventive measure available today.

Male homosexuals with an AIDS risk should have regular medical check-ups to detect early signs of disease.

ADVICE TO RECIPIENTS OF BLOOD COAGULATION FACTORS AND THEIR PHYSICIANS

The acquired immune deficiency syndrome (AIDS) has been observed in hemophiliacs receiving factor VIII or factor IX concentrates. Since the infectious nature of AIDS became apparent in 1982, special efforts have been made to carefully select the donors for plasma used to prepare coagulation factors. Research activities with the aim of manufacturing coagulation factors synthetically or of processing plasma in such a way that infectious agents are completely eliminated or destroyed are under way. It has to be expected that the risk of acquiring AIDS for hemophiliacs will decrease continuously in the near future.

It should be noted that the use of cryoprecipitates appears to carry a smaller risk than the use of large pool preparations. It has been suggested that newly recognized hemophiliacs who need substitution be treated only with cryoprecipitate. It is recommended that national self-sufficiency be achieved with regard to plasma used for production of coagulation factors from donors not at risk for hepatitis and/or AIDS.

The recommendation of the Council of Europe on Preventing the Possible Transmission of AIDS from Affected Donors to Patients Receiving Blood or Blood Products should be implemented.

ADVICE TO AIDS CASES OR SUSPECTED AIDS CASES

AIDS patients who are under medical care are urged to follow the advice given by their physicians. Such advice may include: avoidance of all situations that may further harm their immune system. Suggested factors included venereal infections, viral diseases, u.v.-exposure, reduction diets or situations that carry increased risks for opportunistic infections, such as bathhouses or saunas; and warning that by sexual contacts they may spread AIDS.

AIDS patients should not follow unprofessional offerings of supposedly AIDS-specific

therapeutics. Unproven remedies may even lead to a deterioration of their condition. The same advice might be considered for patients with the AIDS-related complex.

COLLABORATION ON AIDS

To combat AIDS it is necessary that the different AIDS groups and/or national authorities establish close cooperation. For this purpose a special European Working Group or Committee on AIDS should be created. Designation of a WHO collaborating centre for AIDS in Europe is desirable.

The first and most urgent task for this center and the cooperating group is to collect data through WHO on the occurrence of AIDS in Europe and to evaluate these data on the basis of a uniform concept. From this evaluation the AIDS epidemiology in Europe will emerge.

Such information as well as information from member countries should be published periodically in a designated journal. The information would be used by the national authorities for the institution of possible control measures, where deemed necessary. Consideration should be given to the possibility of publishing a special AIDS newsletter.

It is desirable that this working group assumes the responsibility of analyzing and distributing pertinent information on new means of diagnosis, therapy and important clinical observations. It is not unlikely that the clinical manifestations of AIDS, especially the spectrum of opportunistic infections, varies according to different geographical regions or prevalence of infectious diseases, e.g. tuberculosis, atypical mycobacteriosis, toxoplasmosis, hepatitis B and fungal and parasitic diseases.

Furthermore, the working group should participate in the planning and coordination of prospective epidemiological studies and of efforts to identify the causative agent.

Representatives of national task forces and the European working group should meet regularly to assess the situation.

REFERENCES

1. CONTE JE JR, HADLEY WK, SANDE M. Infection-control guidelines for patients with the acquired immunodeficiency syndrome (AIDS). *N Engl J Med* 1983, **309**, 740-744.
2. Das erworbene Immundefekt-Syndrom AIDS (Acquired Immune Deficiency Syndrome). Ratschläge an Ärzte. *Bundesgesundhbl* 1983, **26**, 286-289.
3. Acquired immune deficiency syndrome (AIDS): precautions for clinical and laboratory staffs. *MMWR* 1982, **31**, 577-580.

APPENDIX 1

The case definition of AIDS used by CDC for epidemiologic surveillance

For the limited purposes of epidemiologic surveillance, CDC defines a case of 'the acquired immune deficiency syndrome' (AIDS) as a person who has had:

- I. a reliably diagnosed disease that is at least moderately indicative of an underlying cellular immune deficiency, but who, at the same time, has had:
- II. no known underlying cause of cellular immune deficiency or any other cause of reduced resistance reported to be associated with that disease.

This general case definition may be made more explicit by specifying:

- I. the particular diseases considered at least moderately indicative of cellular immune deficiency,
- and
- II. the known causes of cellular immune deficiency, or other causes of reduced resistance reported to be associated with particular diseases.

This is done below.

I. Diseases at least moderately indicative of underlying cellular immune deficiency. These are listed below in 5 etiological categories: (A) protozoal and helminthic; (B) fungal; (C) bacterial; (D) viral; and (E) cancer. Within each category, the diseases are listed in alphabetical order. 'Disseminated infection' refers to involvement of liver, bone marrow or multiple organs, not simply involvement of lungs and multiple lymph nodes. The required diagnostic methods with positive results are shown in parentheses.

- A. Protozoal and helminthic infections
 - 1. Cryptosporidiosis, intestinal, causing diarrhea for over 1 month (on histology or stool microscopy)

- 2. *Pneumocystis carinii* pneumonia (on histology, or microscopy of a 'touch' preparation or bronchial washings)
- 3. Strongyloidosis, causing pneumonia, central nervous system infection or disseminated infection (on histology)
- 4. Toxoplasmosis, causing pneumonia or central nervous system infection (on histology, or microscopy of a 'touch' preparation)
- B. Fungal infections
 - 1. Aspergillosis, causing central nervous system or disseminated infection (on culture or histology)
 - 2. Candidiasis, causing esophagitis (on histology, microscopy of a 'wet' preparation from the esophagus or endoscopic findings of white plaques on an erythematous mucosal base)
 - 3. Cryptococcosis, causing pulmonary, central nervous system or disseminated infection (on culture, antigen detection, histology or India ink preparation of CSF)
- C. Bacterial infections
 - 1. 'Atypical' mycobacteriosis (species other than tuberculosis or lepra), causing disseminated infection (on culture)
- D. Viral infections
 - 1. Cytomegalovirus, causing pulmonary, gastrointestinal tract or central nervous system infection (on histology)
 - 2. Herpes simplex virus, causing chronic mucocutaneous infection with ulcers persisting more than 1 month, or pulmonary, gastrointestinal tract or disseminated infection (on culture, histology or cytology)
 - 3. Progressive multifocal leukoencephalopathy (presumed to be caused by Papovavirus) (on histology)
- E. Cancer
 - 1. Kaposi's sarcoma (on histology)
 - 2. Lymphoma limited to the brain (on histology)
- II. Known causes of reduced resistance. Known causes of reduced resistance to diseases indicative of immune deficiency are listed in the left column, while the diseases that may be attributable to these causes (rather than to the immune deficiency of AIDS) are listed on the right:

Known causes of reduced resistance	Diseases possibly attributable to the known causes of reduced resistance
1. Systemic corticosteroid or other immunosuppressive or cytotoxic therapy	Any infection that began during or within 1 month after such therapy, if the therapy began before signs or symptoms specific for the infected anatomic sites (e.g. dyspnea for pneumonia, headache for encephalitis, diarrhea for colitis); or cancer diagnosed during or within 1 month after <i>more than 4 months</i> of such therapy, if the therapy began before signs or symptoms specific for the anatomic sites of the cancer
2. Widespread cancer of lymphoid or histiocytic tissue, such as lymphoma, Hodgkin's disease, lymphocytic leukemia or multiple myeloma (this does not include cancer that is entirely localized to one site, such as primary lymphoma of the brain)	Any other cancer or infection, regardless of whether diagnosed before or after (because a lymphoma may have been present before, even if diagnosed after)
3. Age 60 yr or older at diagnosis	Kaposi's sarcoma
4. Age under 28 days (neonatal) at diagnosis	Toxoplasmosis, cytomegalovirus or Herpes simplex virus infections
5. An immune deficiency atypical of AIDS, such as one involving hypogammaglobulinemia; or an immune deficiency of which the cause appears to be a genetic or developmental defect (e.g. thymic dysplasia)	Any infection or cancer diagnosed during such immune deficiency

APPENDIX 2*

AIDS-related complex

The working definition was developed by the NIH AIDS Working Group in collaboration with the CDC and clinical investigators in the U.S.A.

To satisfy the definition a person must have any two (or more) signs/symptoms *and* any two (or more) abnormal laboratory values.

I. Clinical signs/symptoms: chronic condition present for 3 months or longer, unexplained.

1. Lymphadenopathy ≥ 2 non-inguinal sites.
2. Weight loss ≥ 7 kg (15 lbs) or $\geq 10\%$ normal body weight.
3. Fever $\geq 38^{\circ}\text{C}$, intermittent or continuous.
4. Diarrhea.
5. Fatigue/malaise.
6. Night sweats.

II. Laboratory studies.

1. Decreased number of T helper cells.
2. Decreased ratio of T helper:T suppressor lymphocytes.
3. Anemia or leukopenia or thrombocytopenia or lymphopenia.
4. Increased serum globulin levels.
5. Decreased blastogenic response of lymphocytes to mitogens.
6. Cutaneous anergy to multiple skin-test antigens.
7. Increased levels of circulating immune complexes.

*Useful for research, *not* for identifying patients at risk.

APPENDIX 3

Precautions advised in providing medical care to an AIDS patient and in the handling and processing of specimens from AIDS patients

Currently available evidence strongly suggests that AIDS may be caused by a transmissible agent. The agent appears to be transmitted via contaminated blood, blood products (e.g. factor VIII concentrates) or contaminated secretions (e.g. semen), etc. The route of spread resembles the one observed for hepatitis B virus. Airborne spread and transmission through causal contact has not been observed.

The aim of the specific infection control measures is to avoid direct contact of skin and mucous membranes with blood, excretions, secretions and tissue of persons suffering from AIDS or presumed to suffer from AIDS. It is advised to use the same precautions as those used in the care for patients or in handling material from patients with hepatitis B virus infection.

Appropriate infection control measures include: special care in using sharp instruments and needles, to avoid self-inoculation; use of gloves and/or protective clothing whenever contact with potentially contaminated material is unavoidable; decontamination of all instruments, objects and surfaces contaminated with possibly infectious material, using disinfectant solutions such as 0.5–1% solution of hypochlorite or 2.5–5% solution of chloramin T; contaminated disposable items or waste should be rendered safe before final disposal, e.g. by autoclaving; labeling of all materials, such as blood, tissues and secretions, as infectious (where special labels are provided to identify material from hepatitis patients, these labels should be used); packaging of all materials likely to contain the agent in such a way that they can be transported safely; a single bedroom is indicated for patients suffering from profuse diarrhea, who are incontinent or suffer from CNS-complications; deceased AIDS patients must be identified as infectious. Autopsy should be performed using double gloves (in special situations where aerosols are likely to be generated goggles and masks should be considered) and waterproof protective clothing, including waterproof shoes. All instruments, tables, etc. must be carefully decontaminated after the autopsy has been performed.

For the handling and processing of specimens from AIDS patients or suspected AIDS patients, strict observance of the rules of good microbiological techniques are mandatory in all laboratories. These rules include: mechanical pipeting devices should be used for the manipulation of all liquids in the laboratory. Mouth pipeting is prohibited; laboratory gowns or special protective clothing should be worn while working with contaminated material and be appropriately discarded before leaving the laboratory; gloves should be worn when skin contact with potentially contaminated material is unavoidable; spills of contaminated material should be promptly removed using disinfectants, as above; all potentially contaminated material used in the laboratory should be decontaminated before disposal or reprocessing.