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Communicable Diseases Intelligence

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Editor Dr I.F. Cook

Contents:

VIRUS REPORTING SCHEME: A total of 1 398 reports were processed for this period.

Nine cases of Q fever were reported, one from New South Wales and eight from Queensland. Occupational exposure data were available from 5 of the Queensland cases:-

- 4 male meatworkers, a 19 year old from Brisbane, a 26 year old from Townsville, a 27 year old from Innisfail and a 38 year old from Kingaroy, and
- a 30 year old male farmer from Mareeba.

None of the nine patients was involved in the Q fever vaccine field trial conducted in South Australia.

Herpes simplex virus type 1 was isolated from the saliva of a 20 year old male who experienced severe sore throat during chemotherapy treatment for acute lymphoblastic leukaemia (ALL).

Cytomegalovirus was isolated from :-

- the post-mortem tissues derived from the lungs and other organs of a 43 year old male AIDS patient who died of cerebral toxoplasmosis,
- the post-mortem tissues derived from the heart of a 25 year old female who died of a severe lower respiratory tract infection. It is not known whether the patient had been immunocompromised.
- the nasal aspirate of a 5 month old female who presented with severe gastroenteritis and an upper respiratory tract infection.

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Two cases of dengue infection acquired overseas were reported:

- serological evidence, with IgM cross-reacting more strongly with dengue than with MVE, was detected in a 24 year old male who presented with prolonged fever, sweaty chills and headache, two months following his return from Thailand.

- specific IgM antibody to dengue virus was detected in the serum of a 42 year old male with fever, skin rash and backache who had been diagnosed with dengue infection in June 1987 in Bangkok.

Influenza virus type B was isolated from the post-mortem tissues derived from the lungs and trachea of a two-week old male who died of a disseminated respiratory syncytial virus (RSV) infection. This case was among the 9 Queensland patients with influenza B reported from Brisbane, Ipswich and remote Mt Isa (Mr I. Cook, personal communication).

Four cases of influenza virus type A subtype H3N2 infection were reported in Melbourne by the Commonwealth Serum Laboratories (CSL) . The first case, reported in CDI 87/15, involved a 10 month old male from whom the H3N2 isolate, preliminary typed by CSL indicated a resemblance to A/Leningrad/360/86. Subsequent antigenic determination using homologous ferret serum identified the H3N2 strain as A/Victoria/7/87, the first new H3N2 subtype isolated in Australia since 1985. Further typing of this virus by the World Influenza Centre in London, indicated that the H3N2 subtype resembled A/Inverness/3491/85, one of the variants that has assumed epidemiologic significance since A/Mississippi/1/87 had shown much decreased activity (M. Evered, personal communication).

AIDS SURVEILLANCE - AUSTRALIA

To 30 July 1987, 539 cases of AIDS fulfilling the criteria of case definition have been reported to the National Health and Medical Research Unit in AIDS Epidemiology and Clinical Research. The distribution of those patients by State or Territory of notification (Table 1), by age group (Table 2), by risk category (Table 3) and by clinical presentation (Table 4) are shown below:-

TABLE 1: AIDS patients by State or Territory of Notification

STATE/ TERRITORY	CASES			DEATHS		
	Male	Female	Total	Male	Female	Total
NSW	369	15	384	207	13	220
VIC	90	1	91	38	1	39
QLD	39	3	42	28	2	30
WA	26	2	28	11	1	12
SA	8	1	9	2	1	3
NT	2	-	2	1	-	1
TAS	1	1	2	1	-	1
ACT	4	-	4	2	-	2
	539	23	562	290	18	308

TABLE 2: AIDS patients by age group

AGE (YEARS)	CASES			DEATHS		
	Male	Female	Total	Male	Female	Total
0 - 9	5	1	6	5	1	6
10 - 19	3	1	4	3	1	4
20 - 29	116	5	121	61	2	63
30 - 39	225	2	227	115	1	116
40 - 49	138	4	142	70	3	73
50 - 59	42	4	46	28	4	32
60 +	10	6	16	8	6	14
	539	23	562	290	18	308

TABLE 3: AIDS patients by risk category

RISK GROUP	CASES	DEATHS
Homo-/Bi-sexual	486	255
IV drug abuser	3	1
Homo-/Bi-sexual IV drug abuser	17	9
Blood transfusion recipient	38	34
Person with haemophilia	6	4
Heterosexual transmission	9	3
None of the above	3	2
	562	308

TABLE 4: AIDS patients by clinical presentation

INITIAL DISEASE REPORTED	CASES	DEATHS
Opportunistic infection alone or with *P. carinii* pneumonia	411	235
Kaposi's sarcoma (KS)	109	47
KS and opportunistic infection	16	12
Lymphoma	26	14
	562	308

AIDS UPDATE - INTERNATIONAL
(Based on WER No.32, 7 August 1987)

Global data - AIDS cases reported to WHO, by country, as of 5 August 1987.

Country/Area	Date of report	Number of cases
Algeria	01.06.87	5
Angola	26.09.86	6
Anguilla	31.03.87	–
Antigua and Barbuda	31.03.87	2
Argentina	31.03.87	78
Australia	30.06.87	523
Austria	31.03.87	72
Bahamas	31.12.86	86
Bahrain	30.07.87	–
Bangladesh	14.04.87	–
Barbados	31.03.87	39
Belgium	31.03.87	230
Belize	31.03.87	2
Benin	18.05.87	3
Bermuda	31.03.87	55
Bhutan	14.04.87	–
Bolivia	30.06.86	1
Botswana	09.05.87	12
Brazil	30.04.87	1 695
British Virgin Islands	31.12.86	–
Bulgaria	31.03.87	1
Burkina Faso	13.11.86	–
Burma	14.04.87	–
Burundi	31.03.87	128
Cameroon	05.03.87	25
Canada	27.04.87	1 000
Cape Verde	30.04.87	4
Cayman Islands	31.12.86	2
Central African Republic	31.10.86	254
Chad	13.11.86	1
Chile	31.03.87	28
China	02.04.87	2
China (Province of Taiwan)	26.01.86	1
Colombia	31.03.87	57
Comoros	13.11.86	–
Congo	13.11.86	250
Costa Rica	31.12.86	20
Côte d'Ivoire	13.11.86	118
Cuba	31.12.86	3
Cyprus	01.06.87	3
Czechoslovakia	31.03.87	7
Democratic People's Republic of Korea	09.05.87	–
Denmark	31.03.87	150
Dominica	31.03.87	3
Dominican Republic	31.03.87	200
Eastern Mediterranean Region	07.04.87	18
Ecuador	31.03.87	18
Egypt	06.07.87	1
El Salvador	31.03.87	9
Ethiopia	30.05.87	5
Finland	31.03.87	19
France		
Metropolitan	31.03.87	1 632
Overseas:		
French Guiana	31.12.86	58
French Polynesia	01.04.87	1
Guadeloupe	31.12.86	40
Martinique	31.12.86	16
Reunion	10.06.87	1
Gabon	22.04.87	2
Gambia	16.03.87	14
German Democratic Republic	31.03.87	3
Germany, Federal Republic of	29.05.87	1 089
Ghana	25.05.87	145
Greece	31.03.87	41
Grenada	31.03.87	4
Guatemala	31.03.87	22
Guinea	30.06.87	9
Guinea Bissau	30.06.87	2
Guyana	31.12.86	2
Haiti	31.03.87	851
Honduras	31.03.87	20
Hong Kong	31.12.86	4
Hungary	31.03.87	3
Iceland	31.03.87	4
India	09.05.87	9
Indonesia	21.04.87	1
Ireland	31.03.87	19
Israel	31.03.87	38
Italy	30.06.87	850
Jamaica	11.05.87	16
Japan	16.06.87	43
Kenya	30.07.87	625
Lebanon	03.06.87	3
Lesotho	13.11.86	1
Liberia	12.06.87	2
Luxembourg	31.03.87	7
Madagascar	25.04.87	–
Malawi	13.11.86	13
Malaysia	01.04.87	1
Maldives	30.06.87	–
Malta	31.03.87	5
Mauritania	13.11.86	–
Mauritius	13.11.86	–
Mexico	31.03.87	407
Montserrat	31.12.85	–
Mozambique	31.12.86	1
Nepal	09.05.87	–
Netherlands	31.03.87	260
New Zealand	30.06.87	45
Nicaragua	31.12.86	–
Nigeria	22.05.87	5
Norway	31.03.87	45
Panama	31.03.87	14
Paraguay	31.03.87	10
Peru	30.06.86	9
Philippines	30.06.87	7
Poland	31.03.87	2
Portugal	31.03.87	54
Qatar	09.05.87	9
Republic of Korea	01.04.87	1
Romania	31.03.87	2
Rwanda	30.11.86	705
Saint Christopher and Nevis	31.12.86	1
Saint Lucia	31.12.86	3
Saint Vincent and the Grenadines	31.12.86	3
Sao Tomé and Principe	01.12.86	–
Senegal	13.11.86	–
Seychelles	13.11.86	–
Singapore	01.04.87	1
South Africa	24.07.87	77
Spain	31.03.87	357
Sri Lanka	14.04.87	2
Suriname	31.03.87	3
Swaziland	01.07.87	7
Sweden	03.07.87	129
Switzerland	30.06.87	266
Thailand	27.04.87	6
Togo	13.11.86	–
Trinidad and Tobago	31.12.86	134
Tunisia	14.05.86	2
Turkey	30.06.87	21
Turks and Caicos Islands	31.12.86	2
Uganda	28.02.87	1 138
USSR	22.06.87	58
United Kingdom	30.06.87	870
United Republic of Tanzania	18.04.87	1 130
United States of America	27.07.87	39 263
Uruguay	31.12.86	8
Vanuatu	31.12.86	–
Venezuela	31.12.86	69
Yugoslavia	31.03.87	10
Zambia	30.06.87	395
Zimbabwe	21.01.87	57
Total		56 320

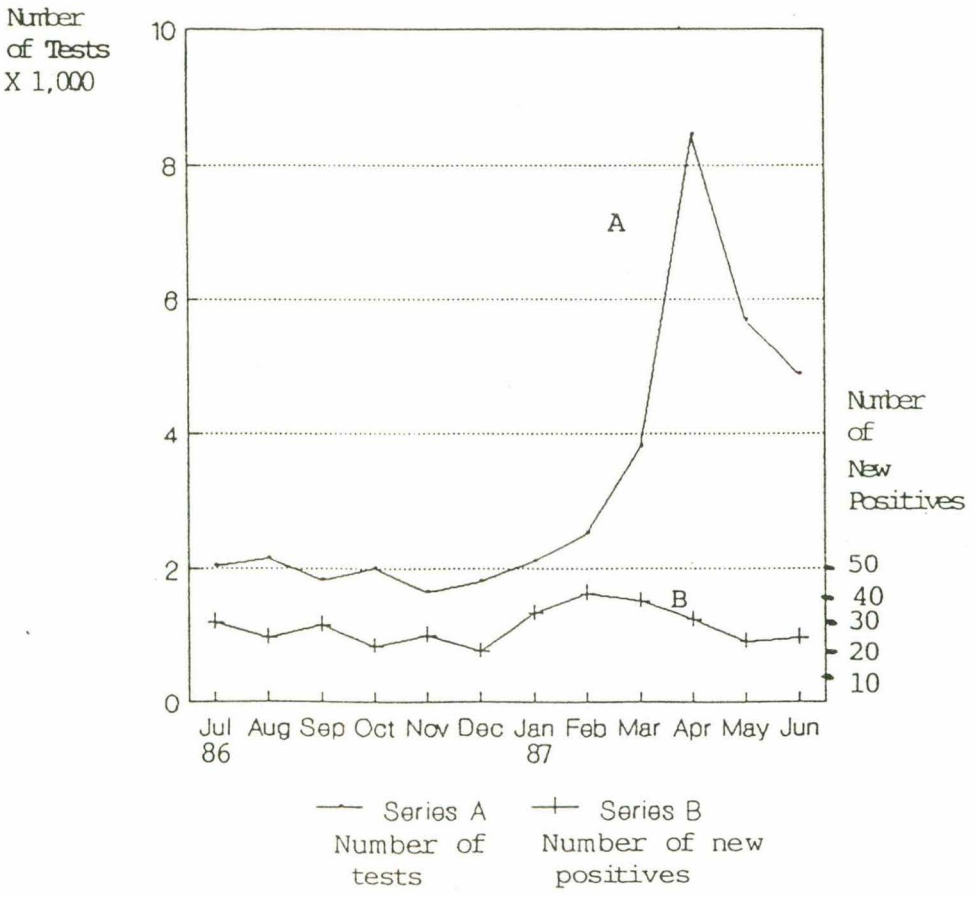
HUMAN IMMUNODEFICIENCY VIRUS (HIV) SURVEILLANCE - VICTORIA

[contributed by B.M. Monheit (Health Dept. VIC.), M.J. Waters (Fairfield Hosp.), E. Waldman (MDU-Melb. Uni.), and K. Harvey (Melb. and Essendon Hosp.)].

The spread of HIV infection in at-risk populations in Victoria is partly monitored by collating results of HIV antibody testing. Such data may, in conjunction with other epidemiological studies, be useful in developing and evaluating public health programs directed towards the control of AIDS (acquired immunodeficiency syndrome).

Following the high profile multi-media advertising campaign on AIDS initiated in early April of this year, Victoria has experienced a dramatic increase in the number of requests for serological HIV antibody testing from concerned individuals. During the first half of 1987, 27 472 tests have been performed by the three HIV antibody testing laboratories in Victoria, compared with 11 815 tests performed in the preceding six months (July to December 1986); no tests on blood donations have been included. Despite this dramatic increase in HIV antibody tests for the first semester of 1987, no corresponding increase in the incidence of HIV antibody positive persons is observed (Figure).

FIGURE: NUMBER OF HIV ANTIBODY TESTS IN VICTORIA - JULY 1986 - JUNE 1987



The incidence of HIV antibody positive persons during January to June 1987 remained at 190; an analysis of risk group is shown below (Table):

TABLE: RISK GROUPS OF HIV ANTIBODY POSITIVE PERSONS - JANUARY - JUNE 1987

RISK GROUP	FEMALE	MALE	TOTAL
Homo-/Bi-sexual	-	168	168
IV drug abuser	1	5	6
Person with haemophilia	-	6	6
Heterosexual transmission	1*	-	1
Blood transfusion recipient	2	-	2
None of the above	-	7	7
TOTAL	4	186	190

* wife of antibody positive bisexual

The high number of HIV antibody tests carried out in April 1987 following the media advertising campaign, was estimated to add approximately an extra A$100 000** to the Victorian health budget.

** The cost of testing for HIV antibody is shared between Victoria and the Commonwealth on a dollar for dollar basis.

REFERENCES

1. MJA (1987) 147:42-44
2. CDI (1985) 13:3-5

AIDS - CDC REVISION OF CASE DEFINITION - U.S.A.

(Based on MMWR Vol. 36/No. 1S, 14 August 1987)

Introduction

The following revised case definition for surveillance of acquired immunodeficiency syndrome (AIDS) was developed by the Centers for Disease Control (CDC) in collaboration with public health and clinical specialists. The objectives of the revision are :-

a) to track more effectively the severe disabling morbidity associated with human immunodeficiency virus (HIV) infection including HIV-1 and HIV-2;

b) to simplify reporting of AIDS cases;

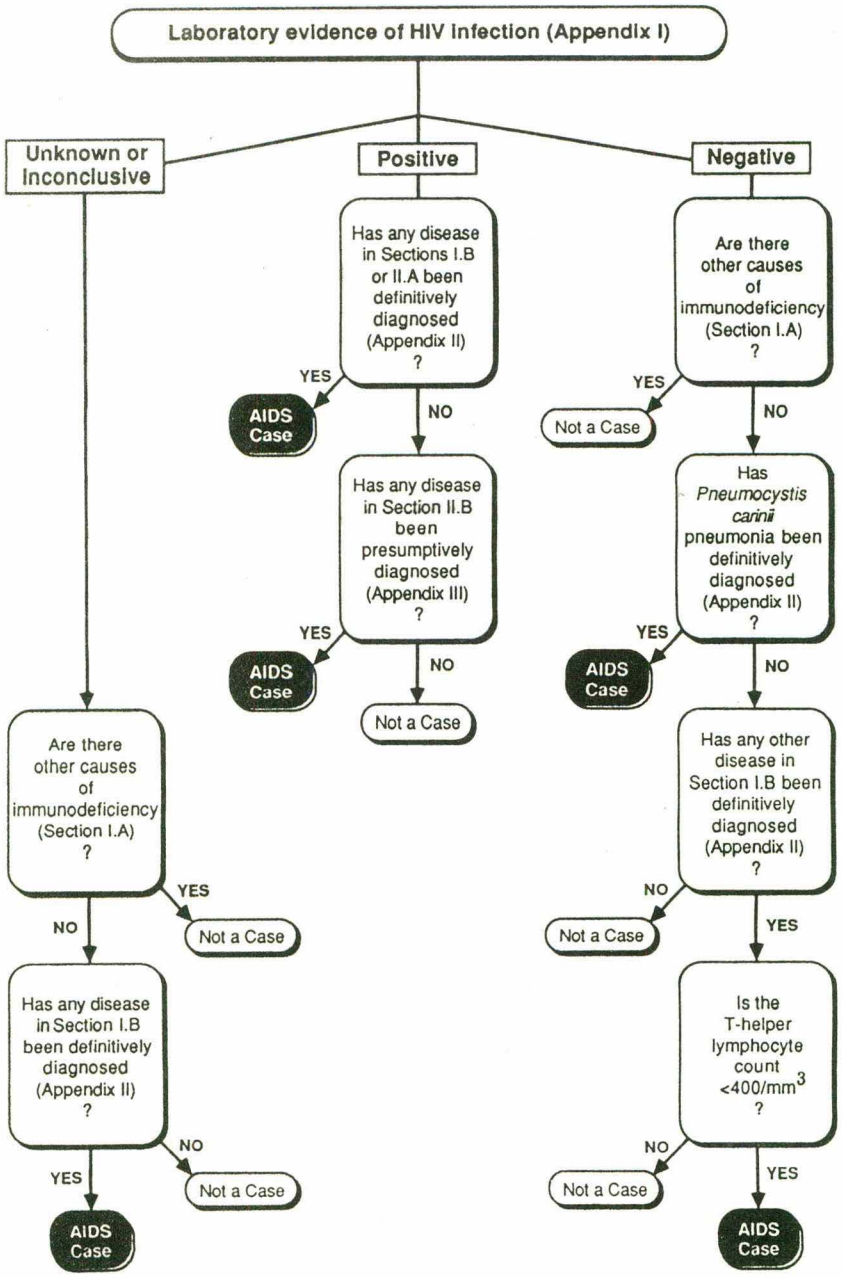
c) to increase the sensitivity and specificity of the definition through greater diagnostic application of laboratory evidence for HIV infection; and

d) to be consistent with current diagnostic practice, which in some cases includes presumptive, i.e. without confirmatory laboratory evidence, diagnosis of AIDS - indicative diseases (eg. Pneumocystis carinii pneumonia, Kaposi's sarcoma).

The adoption of this revised definition for national reporting of AIDS has been officially recommended in the USA.

The definition is organised into three sections that depend on the status of laboratory evidence of HIV infection (eg. HIV antibody) (FIGURE 1).

FIGURE 1: Flow diagram for revised CDC case definition of AIDS, 1 September 1987



The major proposed changes apply to patients with laboratory evidence for HIV infection:

a) inclusion of HIV encephalopathy, HIV wasting syndrome, and a broader range of specific AIDS-indicative diseases (Section II.A)

b) inclusion of AIDS patients whose indicator diseases are diagnosed presumptively (Section II.B)

c) elimination of exclusions due to other causes of immunodeficiency (Section I.A)

Application of the definition for children differs from that for adults in two ways:

. First, multiple or recurrent serious bacterial infections and lymphoid interstitial pneumonia/pulmonary lymphoid hyperplasia are accepted as indicative of AIDS among children but not among adults.

. Second, for children under 15 months of age whose mothers are thought to have had HIV infection during the child's perinatal period, the laboratory criteria for HIV infection are more stringent, since the presence of HIV antibody in the child is, by itself, insufficient evidence for HIV infection because of the persistence of passively acquired maternal antibodies during the first 15 months after birth.

The new definition is effective immediately in the USA where CDC has requested State and local health departments to apply the new definition henceforth to patients reported to them. The initiation of the actual reporting of cases that meet the new definition is targeted for 1 September 1987, when modified computer software and report forms should be in place to accommodate the changes. Retrospective application of the revised definition to patients already reported to health departments has also been recommended. The new definition follows:

1987 REVISION OF CASE DEFINITION FOR AIDS FOR SURVEILLANCE PURPOSES

For national reporting, a case of AIDS is defined as an illness characterised by one or more of the following "indicator" diseases, depending on the status of laboratory evidence of HIV infection as shown below.

I. WITHOUT LABORATORY EVIDENCE REGARDING HIV INFECTION

IF: laboratory tests for HIV were not performed or gave inconclusive results (See Appendix I),

and: the patient had no other case of immunodeficiency listed in Section 1.A below,

THEN: any disease listed in Section 1.B indicates AIDS if it was diagnosed by a definitive method (See Appendix II)

A. Causes of immunodeficiency that disqualify diseases as indicators of AIDS in the absence of laboratory evidence for HIV infection

1. high-dose or long-term systemic corticosteroid therapy or other immunosuppressive/cytotoxic therapy of 3 months or less before the onset of the indicator disease

2. any of the following diseases diagnosed 3 months or less after diagnosis of the indicator disease: Hodgkin's disease, non-Hodgkin's lymphoma (other than primary brain lymphoma), lymphocytic leukaemia, multiple myeloma, any other cancer of lymphoreticular or histiocytic tissue, or angioimmunoblastic lymphadenopathy

3. a genetic (congenital) immunodeficiency syndrome or an acquired immunodeficiency syndrome atypical of HIV infection, such as one involving hypogammaglobulinemia

B. Indicator diseases diagnosed definitively (See Appendix II)

1. candidiasis of the oesophagus, trachea, bronchi or lungs

2. cryptococcosis, extrapulmonary

3. cryptosporidiosis with diarrhoea persisting more than 1 month

4. cytomegalovirus disease of an organ other than liver, spleen, or lymph nodes in a patient over 1 month of age

5. herpes simplex virus infection causing a mucocutaneous ulcer that persists longer than 1 month; or bronchitis, pneumonitis, or oesophagitis for any duration affecting a patient over 1 month of age

6. Kaposi's sarcoma affecting a patient less than 60 years of age

7. lymphoma of the brain (primary) affecting a patient less than 60 years of age

8. lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia (LIP/PLH complex) affecting a child under 13 years of age

9. Mycobacterium avium complex or M. kansasii disease, disseminated (at a site other than or in addition to lungs, skin or cervical or hilar lymph nodes)

10. Pneumocystis carinii pneumonia

11. progressive multifocal leukoencephalopathy

12. toxoplasmosis of the brain affecting a patient over 1 month of age

II. WITH LABORATORY EVIDENCE FOR HIV INFECTION

Regardless of the presence of other cases of immunodeficiency (I.A), in the presence of laboratory evidence for HIV infection (See Appendix 1), any disease listed above (I.B) or below (II.A or II.B) indicates a diagnosis of AIDS.

A. Indicator diseases diagnosed definitively (See Appedix II)

1. bacterial infections, multiple or recurrent (any combination of at least two within a 2-year period), of the following types affecting a child under 13 years of age:

   septicemia. pneumonia, meningitis, bone or joint infection, or abscess of an internal organ or body cavity (excluding otitis media or superficial skin or mucosal abscesses), caused by Haemophilus, Streptococcus (including pneumococcus), or other pyogenic bacteria

2. coccidiodomycosis, disseminated (at a site other than or in addition to lungs or cervical or hilar lymph nodes)

3. HIV encephalopathy (also called "HIV dementia", "AIDS dementia", or "subacute encephalitis due to HIV")(See Appendix II for description)

4. histoplasmosis, disseminated (at a site other than or in addition to lungs or cervical or hilar lymph nodes)

5. isosporiasis with diarrhoea persisting more than 1 month

6. Kaposi's sarcoma at any age

7. lymphoma of the brain (primary) at any age

8. other non-Hodgkin's lymphoma of B-cell or unknown immunologic phenotype and the following histologic types:
   a. small noncleaved lymphoma (either Burkitt or non-Burkitt type)

   b. immunoblastic sarcoma (equivalent to any of the following, although not necessarily all in combination: immunoblastic lymphoma, large-cell lymphoma, diffuse histiocytic lymphoma, diffuse undifferentiated lymphoma, or high-grade lymphoma)

   NOTE: Lymphomas are not included here if they are of T-cell immunologic phenotype or their histologic type is not described or is described as "lymphocytic", "lymphoblastic", "small cleaved", or "plasmacytoid lymphocytic"

9. any mycobacterial disease caused by mycobacteria other than M. tuberculosis, disseminated (at a site other than or in addition to lungs, skin or cervical or hilar lymph nodes)

10. diseases caused by M. tuberculosis, extrapulmonary (involving at least one site outside the lungs, regardless of whether there is concurrent pulmonary involvement)

11. Salmonella (nontyphoid) septicemia, recurrent

12. HIV wasting syndrome (emaciation, "slim disease") (See Appendix II for description)

B. Indicator diseases diagnosed presumptively (by a method other than those in Appendix II)

NOTE: Given the seriousness of diseases indicative of AIDS, it is generally important to diagnose them definitively, especially when therapy that would be used may have serious side effects or when definitive diagnosis is needed for eligibility for antiretroviral therapy. Nonetheless, in some situations, a patient's condition will not permit the performance of definitive tests. In other situations, accepted clinical practice may be to diagnose presumptively, based on the presence of characteristic clinical and laboratory abnormalities. Guidelines for presumptive diagnosis are suggested in Appendix III.

1. candidiasis of the oesophagus

2. cytomegalovirus retinitis with loss of vision

3. Kaposi's sarcoma

4. lymphoid interstitial pneumonia and /or pulmonary lymphoid hyperplasia (LIP/PLH complex) affecting a child under 13 years of age

5. mycobacterial disease (acid-fast bacilli with species not identified by culture), disseminated (involving at least one site other than or in addition to lungs, skin or cervical or hilar lymph nodes)

6. Pneumocystis carinii pneumonia

7. toxoplasmosis of the brain affecting a patient over 1 month of age

III. WITH LABORATORY EVIDENCE AGAINST HIV INFECTION

With laboratory test results negative for HIV infection (See Appendix I), a diagnosis of AIDS for surveillance purposes is ruled out unless:

A. all the other causes of immunodeficiency listed above in Section 1.A are excluded;

AND B the patient has had either:

1. Pneumocystis carinii pneumonia diagnosed by a definitive method (See Appendix II);

OR 2. a. any of the other diseases indicative of AIDS listed above in Section 1.B diagnosed by a definitive method (See Appendix II); AND

b. a T-helper/inducer (CD4) lymphocyte count less than $400/mm^3$.

COMMENTARY

The surveillance of severe disease associated with HIV infection remains an essential, though not the only, indicator of the course of the HIV epidemic. The number of AIDS cases and the relative distribution of cases by demographic, geographic, and behavioral risk variables are the oldest indices of the epidemic, which began in 1981 and for which data are available retrospectively back to 1978. The original surveillance case definition, based on then-available knowledge, provided useful epidemiologic data on severe HIV disease [1]. To ensure a reasonable predictive value for underlying immunodeficiency caused by what was then an unknown agent, the indicators of AIDS in the old case definition were restricted to particular opportunistic diseases diagnosed by reliable methods in patients without specific known causes of immunodeficiency. After HIV was discovered to be the cause of AIDS, however, and highly sensitive and specific HIV-antibody tests became available, the spectrum of manifestations of HIV infection became better defined, and classification systems for HIV infection were developed [2-5]. It became apparent that some progressive, seriously disabling, and even fatal conditions (e.g., encephalopathy, wasting syndrome) affecting a substantial number of HIV-infected patients were not subject to epidemiologic surveillance, as they were not included in the AIDS case definition. For reporting purposes, the revision adds to the definition most of those severe non-infectious, non-cancerous HIV-associated conditions that are categorised in the CDC clinical classification systems for HIV infection among adults and children [4,5].

Another limitation of the old definition was that AIDS-indicative diseases are diagnosed presumptively (i.e., without confirmation by methods required by the old definition) in 10%-15% of patients diagnosed with such diseases; thus, an appreciable proportion of AIDS cases were missed for reporting purposes [6,7]. This proportion may be increasing, which would compromise the old case definiton's usefulness as a tool for monitoring trends. The revised case definition permits the reporting of these clinically diagnosed cases as long as there is laboratory evidence of HIV infection.

The effectiveness of the revision will depend on how extensively HIV-antibody tests are used. Approximately one third of AIDS patients in the United States have been from New York City and San Francisco, where, since 1985, less than 7% have been reported with HIV-antibody test results, compared with over 60% in other areas. The impact of the revision on the reported numbers of AIDS cases will also depend on the proportion of AIDS patients in whom indicator diseases are diagnosed presumptively rather than definitively. The use of presumptive diagnostic criteria varies geographically, being more common in certain rural areas and in urban areas with many indigent AIDS patients.

To avoid confusion about what should be reported to health departments, the term "AIDS" should refer only to conditions meeting the surveillance definition. This definition is intended only to provide consistent statistical data for public health purposes. Clinicians will not rely on the definition

alone to diagnose serious disease caused by HIV infection in individual patients because there may be additional information that would lead to a more accurate diagnosis:

. patients who are not reportable under the definition because they have either a negative HIV-antibody test or, in the presence of HIV antibody, an opportunistic disease not listed in the definiton as an indicator of AIDS nonetheless may be diagnosed as having serious HIV disease on consideration of other clinical or laboratory characteristics of HIV infection or a history of exposure to HIV.

. conversely, the AIDS surveillance definition may rarely misclassify other patients as having serious HIV disease if they have no HIV-antibody test but have an AIDS-indicative disease with a background incidence unrelated to HIV infection, such as cryptococcal meningitis.

The diagnostic criteria accepted by the AIDS surveillance case definition should not be interpreted as the standard of good medical practice. Presumptive diagnoses are accepted in the definition because not to count them would be to ignore substantial morbidity resulting from HIV infection. Likewise, the definition accepts a reactive screening test for HIV antibody without confirmation by a supplemental test because a repeatedly reactive screening test result, in combination with an indicator disease, is highly indicative of true HIV disease. For national surveillance purposes, the tiny proportion of possibly false-positive screening tests in persons with AIDS-indicative diseases is of little consequence. For the individual patient, however, a correct diagnosis is critically important. The use of supplemental tests is, therefore, strongly endorsed. An increase in the diagnostic use of HIV-antibody tests could improve both the quality of medical care and the function of the new case definition, as well as assist in providing counselling to prevent transmission of HIV.

APPENDIX I

LABORATORY EVIDENCE FOR OR AGAINST HIV INFECTION

1. For Infection:

When a patient has disease consistent with AIDS:

a. a serum specimen from:
. a patient over 15 months of age;
OR . from a child under 15 months of age whose mother is not thought to have had HIV- infection during the child's perinatal period;
that is repeatedly reactive for HIV antibody by a screening test (e.g., enzyme-linked immunosorbent assay [ELISA]), as long as subsequent HIV-antibody tests (e.g., Western blot, immunofluorescence assay), if done, are positive;

OR b. a serum specimen from a child under 15 months of age, whose mother is thought to have had HIV infection during

the child's perinatal period, that is repeatedly reactive for HIV antibody by a screening test (e.g., ELISA), plus increased serum immunoglobulin levels and at least one of the following abnormal immunologic tests results:

.reduced absolute lymphocyte count,

.depressed CD4 (T-helper) lymphocyte count, or decreased CD4/CD8 (helper/supressor) ratio as long as subsequent antibody tests (e.g. Western blot, immunofluorescence assay), if done, are positive;

OR c. a positive test for HIV serum antigen;

OR d. a positive HIV culture confirmed by both reverse transcriptase detection and a specific HIV-antigen test or in situ hybridization using a nucleic acid probe;

OR e. a positive result on any other highly specific test for HIV (e.g., nucleic acid probe of peripheral blood lymphocytes).

2. Against Infection:

A nonreactive screening test for serum antibody to HIV (e.g., ELISA) without a reactive or positive result on any other test for HIV infection (e.g., antibody, antigen, culture), if done.

3. Inconclusive (Neither For nor Against Infection):

a. a repeatedly reactive screening test for serum antibody to HIV (e.g., ELISA) followed by a negative or inconclusive supplemental test (e.g., Western blot, immunofluorescence assay) without a positive HIV culture or serum antigen test, if done;

OR b. a serum specimen from a child under 15 months of age, whose mother is thought to have had HIV infection during the child's perinatal period, that is repeatedly reactive for HIV antibody by a screening test, even if positive by a supplemental test, without additional evidence for immunodeficiency as described above (in 1.b) and without a positive HIV culture or serum antigen test, if done.

APPENDIX II

DEFINITIVE DIAGNOSTIC METHODS FOR DISEASES INDICATIVE OF AIDS

Definitive Diagnostic Methods

A microscopy (histology or cytology): for the following diseases:-

. cryptosporidiosis
. cytomegalovirus
. isosporiasis
. Kaposi's sarcoma
. lymphoma
. lymphoid pneumonia or hyperplasia
. Pneumocystis carinii pneumonia
. progressive multifocal leukoencephalopathy
. toxoplasmosis

B gross inspection by endoscopy or autopsy or by microscopy (histology or cytology) on a specimen obtained directly from the tissue affected (including scrapings from the mucosal surface), not from a culture for candidiasis

C microscopy (histology or cytology), culture , or detection of antigen in a specimen obtained directly from the tissues affected or a fluid from those tissues for the following diseases:

. coccidioidomycosis
. cryptococcosis
. herpes simplex virus
. histoplasmosis

D culture for the following diseases:

. tuberculosis
. other mycobacteriosis
. salmonellosis
. other bacterial infection

E. clinical findings of disabling cognitive and/or motor dysfunction interfering with occupation or activities of daily living, or loss of behavioral developmental milestones affecting a child, progressing over weeks to months, in the absence of a concurrent illness or condition other than HIV infection that could explain the findings for HIV encephalopathy* (dementia)
[Methods to rule out such concurrent illnesses and conditions must include cerebrospinal fluid examination and either brain imaging (computed tomography or magnetic resonance) or autopsy].

F. findings of profound involuntary weight loss exceeding 10% of baseline body weight plus either chronic diarrhoea (at least two loose stools per day for more than 30 days) or chronic weakness and documented fever (for more than 30 days, intermittent or constant) in the absence of a concurrent illness or condition other than HIV infection that could explain the findings (e.g., cancer, tuberculosis, cryptosporidiosis, or other specific enteritis) for HIV wasting syndrome*.

*For HIV encephalopathy and HIV wasting syndrome, the methods of diagnosis described here are not truly definitive, but are sufficiently rigorous for surveillance purposes.

APPENDIX III

SUGGESTED GUIDELINES FOR PRESUMPTIVE DIAGNOSIS OF DISEASES INDICATIVE OF AIDS

Disease	Presumptive Diagnostic Criteria for
. candidiasis of oesophagus	- a. recent onset of retrosternal pain on swallowing;

AND - b. oral candidiasis diagnosed by the gross appearance of white patches or plaques on an erythematous base or by microscopic appearance of fungal mycelial filaments in an uncultured specimen scraped from the oral mucosa.

. cytomegalovirus retinitis - a characteristic appearance on serial ophthalmoscopic examinations (e.g., discrete patches of retinal whitening with distinct borders, spreading in a centrifugal manner, following blood vessels, progressing over several months, frequently associated with retinal vasculitis, haemorrhage, and necrosis). Resolution of active disease leaves retinal scarring and atrophy with retinal pigment epithelial mottling.

. mycobacteriosis - microscopy of a specimen from stool or normally sterile body fluids or tissue from a site other than lungs, skin, or cervical or hilar lymph nodes, showing acid-fast bacilli of a species not identified by culture.

. Kaposi's sarcoma - a characteristic gross appearance of an erythematous or violaceous plaque-like lesion on skin or mucous membrane.

- (NOTE: Presumptive diagnosis of Kaposi's sarcoma should not be made by clinicians who have seen few cases of it.)

. Lymphoid interstitial pneumonia - bilateral reticulonodular interstitial pulmonary infiltrates present on chest X-ray for over 2 months with no pathogen identified and no response to antibiotic treatment.

. Pneumocystis carinii pneumonia - a. a history of dyspnea on exertion or nonproductive cough of recent onset (within the past 3 months);

AND - b. chest X-ray evidence of diffuse bilateral interstitial infiltrates or gallium scan evidence of diffuse bilateral pulmonary disease;

AND - c. arterial blood gas analysis showing an arterial pO_2 of below 70mm Hg or a low respiratory diffusing

capacity (less than 80% of predicted values) or an increase in the alveolar-arterial oxygen tension gradient;

AND - d. no evidence of a bacterial pneumonia.

- toxoplasmosis of the brain - a. recent onset of a focal neurologic abnormality consistent with intracranial disease or a reduced level of consciousness;

AND - b. brain imaging evidence of a lesion having a mass effect (on computed tomography or nuclear magnetic resonance) or the radiographic appearance of which is enhanced by injection of contrast medium;

AND - c. serum antibody to toxoplasmosis or successful responses to therapy for toxoplasmosis.

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BREAST-FEEDING/BREAST MILK AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)

(Extracted from WER 1987, 33, 14 August 1987

In view of the importance of breast milk and breast-feeding for the health of infants and young children, and of the increasing prevalence of human immunodeficiency virus (HIV) infection in many parts of the world, a consultation of 20 participants from 15 countries on breast-feeding/breast milk and HIV Infection was organised to review currently available information on the possible relationship between breast-feeding/breast milk and HIV transmission, and to identify further research needs in this area. The conclusions of the consultation are summarised below.

Evidence concerning the transmission of HIV from infected mothers to their infants suggests that between 25 and 50% of all offspring will be infected. The risk of transmission may depend on a number of factors including:

.the timing of the mother's HIV infection;
.the mother's immunological and overall health status;
.her parity and intercurrent infections; and
.other possible factors.

Transmission of HIV from infected mothers to their infants may occur before, during, or shortly after birth. The possibility that HIV could be transmitted through breast-feeding/breast milk is supported by a report that HIV can be cultured from breast milk from mothers who are themselves infected. At present, the risk of HIV transmission from mother to infant through breast-feeding has not been defined, but available information suggests that if such transmission occurs, the relative contribution of this route is probably small, as compared with in utero and intrapartum transmission:

- there is currently a substantial number of infants born to infected mothers who have been breast-fed without showing any evidence of acquiring HIV infection,
- however, there are a few reported cases where mothers became infected postpartum through blood transfusions, and where their infants, in turn, became infected, possibly through breast-feeding.

This does not necessarily imply, however, that such transmission occurs among mothers who were infected with HIV before or during pregnancy.

The immunological, nutritional, psychosocial and child-spacing benefits of breast milk/breast-feeding are well recognised. They have been reflected increasingly in national and international policies on maternal and child health.

Breast milk is also important in preventing intercurrent infections which could accelerate progression of HIV-related disease in already infected infants. The importance of breast milk and breast-feeding for the survival and development of infants and young children, as well as for child spacing and hence maternal health, should continue to be emphasised in all health and nutrition policies.

Additional epidemiological and laboratory research is needed on the risks of HIV transmission through breast milk and on the potential benefits of breast milk in situations where infants have been exposed to HIV or are already infected.

In the interim:

(a) Breast-feeding should continue to be promoted, supported and protected in both developing and developed countries. The overall immunological, nutritional, psychosocial and child-spacing benefits of breast-feeding to infants and their mothers continue to be important factors in determining the overall health of mother and child.

(b) If, for whatever reason, the biological mother cannot breast-feed or her milk is not available, and the use of pooled human milk is considered, the report of isolation of HIV in breast milk should be taken into account. Pasteurisation at 56°C for 30 minutes has been reported to inactivate the virus. Further research on the effectiveness of different methods of pasteurisation, however, is needed. As an aditional precaution, the possibility of screening donors (in accordance with WHO criteria on HIV screening) should be considered, especially

in areas where the prevalence of HIV infection is known to be high. Similarly, if, for whatever reason, the biological mother cannot breast-feed, or her milk is not available, and where wet-nursing is the next obvious choice, care may need to be taken in selecting the wet-nurse, bearing in mind her possible HIV infection status and that of the infant who is to be fed.

(c) In individual situations where the mother is considered to be HIV-infected, and recognising the difficulties inherent in assessing the infection status of the newborn, the known and potential benefits of breast-feeding should be compared to the theoretical, but apparently small, incremental risk to the infant of becoming infected through breast-feeding. Consideration should be given to the socioeconomic and ecological environment of the mother-child pair and the extent to which alternatives can safely and effectively be used.

In many circumstances and, particularly, where the safe and effective use of alternatives is not possible, breast-feeding by the biological mother should continue to be the feeding method of choice, irrespective of her HIV infection status.

CONTRACEPTIVE METHODS AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)

(Extracted from WER 1987, 33, 14 August 1987)

A meeting on contraceptive methods and human immunodeficiency virus (HIV) infection, attended by 16 participants from 9 countries, was organised to review available information on the possible interactions between contraception and HIV infections, and to identify research needs in this area.

Women at risk of HIV infection need safe and effective contraception. Furthermore, given the substantial risk of perinatal transmission, it is particularly important that women already infected with HIV have access to effective methods of fertility regulation. In both cases, the potential interaction between HIV infection and contraception must be considered. Three areas of potential interaction were reviewed:

. (a) susceptibility to HIV infection;
. (b) infectiousness of HIV-infected persons;
. (c) development and course of HIV-related illness.

Although all current methods of contraception were reviewed, the following methods were considered in detail, since they present the highest potential for interaction with HIV infection:

. (a) intra-uterine devices (IUDs);
. (b) combined oral contraceptives;
. (c) progestogen-only contraceptives (e.g, injectables, implants, progestogen-only oral contraceptives).

Irrespective of whether other contraceptive methods are used condoms should always be used whenever there is a risk of sexual transmission of HIV infection. Condoms and spermicides will be the subject of another meeting.

A number of theoretical interactions, both adverse and beneficial, between the contraceptive methods and HIV infection were considered. Conclusions were difficult to draw because of the marked paucity in this area of basic and epidemiological data:

- No epidemiological data are currently available on the relationship between HIV infection and the use of intra-uterine devices (IUDs), or progestogen-only contraceptives.
- Despite the data in one unpublished report which have suggested a possible association between oral contraceptives and susceptibility to HIV infection, no conclusion can be drawn from this preliminary data at this time.
- Data in other preliminary reports have suggested no association between oral contraception and susceptibility to HIV infection.

The meeting adopted the following recommendations:

(1) Additional research is urgently needed. Areas of highest priority are:

(a) epidemiological studies of the influence of combined oral contraceptives, depot-medroxyprogesterone acetate (DMPA) (a progestogen-only contraceptive), and IUDs:
.on susceptibility to HIV infection,
.infectiousness of HIV-infected women, and
.the development and course of HIV-related illness;

(b) basic studies of the mechanism of HIV transmission (both in humans and in animal models) and their modification by contraceptive methods;

(c) epidemiological studies on the influence of pregnancy on the development and course of HIV-related illness;

(d) studies of immune function in women without HIV infection who are using hormonal contraception.

[The need for WHO to coordinate research in this field and to undertake epidemiological studies, particularly in developing countries, was emphasised.]

(2) In the light of current information, no changes in existing recommendations concerning contraceptive use are warranted. The choice of contraceptive method for an individual/couple should continue to take into account the risks and benefits of each method, and the particular circumstances and lifestyle of the individuals concerned. In particular, IUDs are not a method of choice for women who are at high risk for sexually transmitted diseases, including HIV infection. The meeting also reiterated the need for sterilisation of needles and other equipment used in fertility regulation.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 10-8-87 to 23-8-87 BULLETIN NUMBER 87/17
VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR-FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
0100 ADENOVIRUS NOT TYPED	5	1	3		8		15	6	38
0101 ADENOVIRUS TYPE 1				1	3			1	5
0102 ADENOVIRUS TYPE 2					1			1	2
0103 ADENOVIRUS TYPE 3			1	1	2				4
0105 ADENOVIRUS TYPE 5						3			3
0106 ADENOVIRUS TYPE 6					2				2
0107 ADENOVIRUS TYPE 7					3				3
0108 ADENOVIRUS TYPE 8				1					1
0199 ADENOVIRUS TYPING PENDING					1				1
0201 INFLUENZA A VIRUS	2								2
0202 INFLUENZA A VIRUS SUBTYPE H3N2					2				2
0203 INFLUENZA B VIRUS			1	2	5		9	1	18
0299 INFLUENZA VIRUS					4				4
0301 PARAINFLUENZA VIRUS TYPE 1					3	5			8
0303 PARAINFLUENZA VIRUS TYPE 3		1		3	10	8	4	1	27
0399 PARAINFLUENZA VIRUS TYPING PENDING					2		1		3
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	21	13	3	30	53	28	27	32	207
0500 RHINOVIRUS (ALL TYPES)				6	10	5	8	2	31
0600 MYCOPLASMA PNEUMONIAE	9				5	1	15	4	34
0901 COXSACKIEVIRUS B1				1				1	2
0902 COXSACKIEVIRUS B2				1					1
0903 COXSACKIEVIRUS B3		1		1	2	1			5
1003 ECHOVIRUS TYPE 3		1							1
1005 ECHOVIRUS TYPE 5					1				1
1011 ECHOVIRUS TYPE 11				2					2
1015 ECHOVIRUS TYPE 15						1			1
1018 ECHOVIRUS TYPE 18					1				1
1023 ECHOVIRUS TYPE 23			1						1
1100 POLIOVIRUS NOT TYPED			2		2				4
1103 POLIOVIRUS TYPE 3								2	2
1200 MUMPS VIRUS								1	1
1300 HERPES VIRUS GROUP-NOT TYPED	4		2	1				2	9
1301 HERPES SIMPLEX VIRUS NOT-TYPED		1						7	8
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	2				1	1	13	8	25
1303 VARICELLA-ZOSTER VIRUS	1		2			2	5	4	14
1306 HERPES SIMPLEX TYPE 1	13			36	18	29	26	18	140
1307 HERPES SIMPLEX TYPE 2	24			67	1	25	28	57	202
1399 HERPES VIRUS TYPING PENDING					7				7
1401 COXIELLA BURNETI	1						8		9
1502 PICORNA VIRUS-NOT TYPED	8		12				12	1	33
1514 MOLLUSCUM CONTAGIOSUM								1	1
1515 CONTAGIOUS PUSTULAR DERMATITIS (ORF VIRUS)	1								1
1521 MEASLES VIRUS		1	1						2
1522 RUBELLA VIRUS	2		1	4		6	8		21
1532 HEPATITIS B ANTIGEN	38		5	18		18	26	16	121
1535 HEPATITIS A ANTIBODY	7			7		7		3	24
1541 CHLAMYDIA A - C TRACHOMATIS	21		1	4		32	5	55	118
1543 CHLAMYDIA A - LGV TYPE	1								1
1556 CMV - CYTOMEGALOVIRUS	2		6	24	8	10	15	21	86
1562 REOVIRUS (ALL TYPES)				1					1
1564 ROTAVIRUS	18	15	20	13	13	24	2	11	116
1599 ENTEROVIRUS TYPING PENDING			8		7				15
9901 ARBO. GROUP A.(UNSPECIFIED)						1			1
9992 ROSS RIVER VIRUS	6						14	1	21
9994 SMALL VIRUS (LIKE) PARTICLE		2							2
9995 DENGUE								2	2
9998 ARBO. GROUP B.							1		1
Total	186	36	69	224	175	207	242	259	1,398

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 10-8-87to 23-8-87 BULLETIN NO 87/17

Viral Identifications by Clinical Information Table 1.
Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; E3 -Encephalitis; M3 -Meningitis; 04 -Paralysis; 05,13 -CNS other unspec.; 07,49 -GI; 17,47 -Hepatic; 19 -CVS; 89 -Urinary; 06 -Skin/mucous.

VIRUS OR VIRAL ANTIGEN	No-ill or data	Respiratory	Encephalitis	Meningitis	Paralysis	CNS other unspec	GI	Hepatic	CVS	Urinary	Skin/mucs memb
0101 ADENOVIRUS TYPE 1.....		4					1				
0103 ADENOVIRUS TYPE 3.....		2									
0105 ADENOVIRUS TYPE 5.....		1					1				
0106 ADENOVIRUS TYPE 6.....		1					1				
0107 ADENOVIRUS TYPE 7.....		2					2				
0201 INFLUENZA A VIRUS.....		2									
0202 INFLUENZA A VIRUS SUBTYPE H3N2		2									
0203 INFLUENZA B VIRUS.....		16									
0301 PARAINFLUENZA VIRUS TYPE 1....		8									
0303 PARAINFLUENZA VIRUS TYPE 3....		26									
0399 PARAINFLUENZA VIRUS TYPING PENDING.....		1									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	1	206					1				1
0600 MYCOPLASMA PNEUMONIAE.....	3	28		1							
0901 COXSACKIEVIRUS B1.....		1				1					
0902 COXSACKIEVIRUS B2.....				1							
0903 COXSACKIEVIRUS B3.....		3		1							
1003 ECHOVIRUS TYPE 3.....							1				
1011 ECHOVIRUS TYPE 11.....				1							
1023 ECHOVIRUS TYPE 23.....		1									
1103 POLIOVIRUS TYPE 3.....		1					1				
1200 MUMPS VIRUS.....						1					
1300 HERPES VIRUS GROUP-NOT TYPED..	1										
1301 HERPES SIMPLEX VIRUS NOT-TYPED	1	1									6
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	5	7						2			
1303 VARICELLA-ZOSTER VIRUS.....	2	1									
1306 HERPES SIMPLEX TYPE 1.....	1	7		1				1		2	88
1307 HERPES SIMPLEX TYPE 2.....	3									1	72
1401 COXIELLA BURNETI.....		2									
1502 PICORNA VIRUS-NOT TYPED.....		1									
1514 MOLLUSCUM CONTAGIOSUM.....											1
1515 CONTAGIOUS PUSTULAR DERMATITIS (ORF VIRUS).....											1
1521 MEASLES VIRUS.....						1					
1522 RUBELLA VIRUS.....	3	1	1								15
1532 HEPATITIS B ANTIGEN.....	29							82			1
1535 HEPATITIS A ANTIBODY.....	5							16			
1541 CHLAMYDIA A - C.TRACHOMATIS...	13										
1543 CHLAMYDIA A - LGV TYPE.....		1									
1556 CMV - CYTOMEGALOVIRUS.....	4	25	1	1	1	1	5	6	1	8	1
1562 REOVIRUS (ALL TYPES).....						1					
1564 ROTAVIRUS.....	1					1	114				2
9992 ROSS RIVER VIRUS.....	4		1			1					2
9994 SMALL VIRUS (LIKE) PARTICLE...							2				
9998 ARBO. GROUP B.	1										
Total.....	77	351	3	6	1	7	129	107	1	11	201

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 10-8-87 to 23-8-87 BULLETIN NO 87/17

Viral Identifications by Clinical Information Table 2.
Code 10 -Eye; 59 -Genital; 39 -Endo/sal gland;
38 -RES; 29 -Muscle/joint; 69 -Congenital; P8 -PUO;
G8 -Fever/malaise; 09 -Other; A1 -SIDS ...

VIRUS OR VIRAL ANTIGEN	Eye	Genital	Endo/sal gland	RES	Muscle/joint	Congenital	PUO	Fever/malaise	Other	SIDS
0100 ADENOVIRUS NOT TYPED.....				1						
0101 ADENOVIRUS TYPE 1.....								1		
0102 ADENOVIRUS TYPE 2.....										2
0103 ADENOVIRUS TYPE 3.....	2									
0105 ADENOVIRUS TYPE 5.....	1						1			
0106 ADENOVIRUS TYPE 6.....								1		
0107 ADENOVIRUS TYPE 7.....								1		
0108 ADENOVIRUS TYPE 8.....	1									
0202 INFLUENZA A VIRUS SUBTYPE H3N2								1		
0203 INFLUENZA B VIRUS.....								2		
0303 PARAINFLUENZA VIRUS TYPE 3....					1			1		
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....			1				1	1		
0600 MYCOPLASMA PNEUMONIAE.....								9	2	
0903 COXSACKIEVIRUS B3.....								2		
1005 ECHOVIRUS TYPE 5.....										1
1011 ECHOVIRUS TYPE 11.....								1		
1015 ECHOVIRUS TYPE 15.....									1	
1018 ECHOVIRUS TYPE 18.....								1		
1302 EPSTEIN-BARR VIRUS (EB VIRUS).		1	4	1	1			7		
1303 VARICELLA-ZOSTER VIRUS.....		2					1			
1306 HERPES SIMPLEX TYPE 1.....	6	31				1			5	
1307 HERPES SIMPLEX TYPE 2.....		127							1	
1401 COXIELLA BURNETI.....					2		1	7		
1502 PICORNA VIRUS-NOT TYPED.....								1		
1521 MEASLES VIRUS.....									1	
1522 RUBELLA VIRUS.....					2	1		1	2	
1532 HEPATITIS B ANTIGEN.....								1	9	
1535 HEPATITIS A ANTIBODY.....									3	
1541 CHLAMYDIA A - C.TRACHOMATIS...	2	103								
1556 CMV - CYTOMEGALOVIRUS.....	3	1	3	1		10	2	12	16	
9901 ARBO. GROUP A.(UNSPECIFIED)...					1					
9992 ROSS RIVER VIRUS.....			1		13			3	1	
9995 DENGUE.....								2		
Total.....	15	265	9	3	20	12	6	55	41	3