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Communicable Diseases Intelligence

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Contents:

VIRUS REPORTING SCHEME: A total of 1,324 reports were processed for this period.

Thirty one cases of Q fever were reported, 5 from New South Wales and 26 from Queensland. Occupational exposure data were only available for 9 Queensland cases:

- 7 meatworkers
  - 4 males (one from Gatton aged 15, one from Toowomba aged 32, one from Brisbane aged 44 and one from Maryborough aged 47)
  - 3 females (one from Wondai aged 31, one from Rockhampton aged 49 and one from Townsville aged 31).
- 1 dairy farm worker, a 60 year old male from Rockhampton, and
- 1 station hand, an 18 year old male from Mount Isa.

None of these thirty one patients was involved in the Q fever vaccine field trial conducted in South Austrlaia.

Cytomegalovirus (CMV) was isolated from:

- the urine of an 8 month old female who received a blood transfusion during recent surgery. No other clinical details regarding the patient's conditions or the surgery was available.

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. the post-mortem tissues derived from the brain, spleen, epididymis and lymph nodes of a 25 year old HIV-antibody positive male who died of CMV retinitis.

Herpes simplex type 2 was isolated from the nasal aspirate of a 6 day old female who died of pneumonia.

Enterovirus (typing pending) was isolated:

. from the throat swabs, urine and cerebrospinal fluid of a 10 day old male with rhinorrhoea and meningitis.

. from the urine of a 20 day old pyrexial female whose sibling had hand, foot and mouth (Coxsackievirus A16/Enterovirus type 71) disease at the time of the patient's illness.

Echovirus type 6 was isolated from the faeces of a 7 year old male who complained of chronic abdominal pain.

Adenovirus (typing pending) was isolated from the biopsy specimens of the digestive tract of a 3 year old male with underlying immunodeficiency.

AIDS SURVEILLANCE - AUSTRALIA

To 10 November 1987, 648 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	431	17	448	233	15	248
VIC	105	1	106	45	1	46
QLD	40	3	43	29	2	31
WA	28	2	30	14	1	15
SA	11	1	12	2	1	3
NT	1	1	2	1	0	1
TAS	2	0	2	1	0	1
ACT	5	0	5	2	0	2
	623	25	648	327	20	347

TABLE 2: AIDS patients by age group

AGE (YEARS)	CASES			DEATHS		
	Male	Female	Total	Male	Female	Total
0 - 9	6	1	7	5	1	6
10 - 19	3	1	4	3	1	4
20 - 29	134	5	139	71	2	73
30 - 39	266	2	268	131	1	132
40 - 49	153	4	157	78	3	81
50 - 59	50	5	55	31	5	36
60 +	11	7	18	8	7	15
	623	25	648	327	20	347

TABLE 3: AIDS patients by risk category

RISK GROUP	CASES	DEATHS
Homo-/Bi-sexual	566	293
IV drug user	3	2
Homo-/Bi-sexual IV drug user	20	10
Blood transfusion recipient	39	34
Person with haemophilia	7	4
Heterosexual transmission	5	1
Under investigation	2	0
None of the above	6	5
	648	347

TABLE 4: AIDS patients by clinical presentation

INITIAL DISEASE REPORTED	CASES	DEATHS
Opportunistic infection (incl. PCP)	487	262
Kaposi's sarcoma (KS) alone	113	55
KS + Opportunistic infection	21	15
Lymphoma	22	12
Lymphoma and Opportunistic infection	5	3
	648	347

COMMENT: Heterosexual cases of AIDS.

There have been 5 cases attributed to heterosexual transmission:

. 2 cases of HIV infected sexual partners of the individuals with AIDS have been found allowing a definitive diagnosis of heterosexual transmission to be made.
. in the remainder no such partner has been found. These latter 3 individuals
  - are allegedly exclusively heterosexuals in their activities;
  - deny the use of intravenous drugs; and
  - have not received blood or blood products.

These cases have been presumptively diagnosed according to the World Health Organization guidelines as being heterosexual cases.

AIDS UPDATE - INTERNATIONAL

(Based on WER No.45, 6 November 1987)

Global data - AIDS cases reported to WHO, by country, as of 4 November 1987.

Country/Area	Date of report	Number of cases
Albania	31.08.87	–
Algeria	01.06.87	5
Angola	26.09.86	6
Anguilla	31.03.87	–
Antigua and Barbuda	30.06.87	3
Argentina	18.09.87	112
Australia	05.10.87	622
Austria	30.06.87	93
Bahamas	31.03.87	105
Bangladesh	14.04.87	–
Barbados	30.06.87	44
Belgium	30.06.87	255
Belize	30.06.87	2
Benin	18.05.87	3
Bermuda	30.06.87	63
Bhutan	14.04.87	–
Bolivia	18.09.87	2
Botswana	30.06.87	13
Brazil	15.09.87	2 013
British Virgin Islands	31.12.86	–
Brunei Darussalam – Brunéi Darus-	08.09.87	–
Bulgaria	06.08.87	3
Burkina Faso	13.11.86	–
Burma	14.04.87	–
Burundi	31.03.87	128
Cameroon	05.03.87	25
Canada	30.09.87	1 334
Cape Verde	30.04.87	4
Cayman Islands	31.03.87	2
Central African Republic	31.10.86	254
Chad	13.11.86	1
Chile	30.06.87	42
China	08.09.87	2
China (Province of Taiwan)	26.01.86	1
Colombia	01.09.87	153
Comoros	13.11.86	–
Congo	13.11.86	250
Cook Islands	08.09.87	–
Costa Rica	30.06.87	31
Côte d'Ivoire	13.11.86	118
Cuba	09.09.87	5
Cyprus	01.06.87	3
Czechoslovakia	31.03.87	7
Democratic People's Republic of Korea	09.05.87	–
Denmark	30.06.87	176
Djibouti	01.10.87	–
Dominica	30.06.87	5
Dominican Republic	31.03.87	200
Eastern Mediterranean Region	10.09.87	36
Ecuador	15.09.87	52
Egypt	06.07.87	1
El Salvador	30.06.87	12
Ethiopia	30.06.87	5
Fiji	08.09.87	–
Finland	30.06.87	19
France		
Metropolitan	30.06.87	1 980
Overseas:		
French Guiana	31.12.86	58
French Polynesia	01.04.87	1
Guadeloupe	31.12.86	40
Martinique	31.03.87	25
New Caledonia and Dependencies	08.09.87	–
Reunion	10.06.87	1
Gabon	06.07.87	13
Gambia	16.03.87	14
German Democratic Republic	30.06.87	4
Germany, Federal Republic of	30.09.87	1 400
Ghana	25.05.87	145
Greece	30.06.87	49
Grenada	30.06.87	5
Guatemala	30.06.87	27
Guinea	30.06.87	9
Guinea-Bissau	30.06.87	2
Guyana	31.12.87	1
Haiti	18.09.87	912
Honduras	30.06.87	29
Hong Kong	08.09.87	4

Country/Area – Pays/Territoire	Date of report	Number of cases
Hungary	30.09.87	5
Iceland	30.06.87	4
India	09.05.87	9
Indonesia	21.04.87	1
Ireland	30.06.87	19
Israel	30.09.87	42
Italy	30.08.87	1 025
Jamaica	30.06.87	19
Japan	06.10.87	50
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	08.09.87	1
Maldives	30.06.87	–
Mali	08.09.87	–
Malta	30.06.87	6
Mariana Islands	05.08.87	–
Mauritania	13.11.86	–
Mauritius	15.09.87	1
Mexico	30.06.87	534
Mongolia	30.09.87	–
Montserrat	31.12.85	–
Mozambique	30.06.87	1
Nepal	09.05.87	–
Netherlands	30.06.87	308
New Zealand	30.09.87	54
Nicaragua	18.09.87	19
Nigeria	22.05.87	5
Norway	30.06.87	49
Panama	18.09.87	22
Papua New Guinea	08.09.87	–
Paraguay	30.06.87	14
Peru	15.09.87	44
Philippines	31.08.87	10
Poland	30.06.87	2
Portugal	30.06.87	67
Qatar	09.05.87	9
Republic of Korea	01.04.86	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
Samoa	08.09.87	–
Sao Tomé and Principe	01.12.86	–
Senegal	13.11.86	–
Seychelles	13.11.86	–
Singapore	30.06.87	2
Solomon Islands	08.09.87	–
South Africa	11.09.87	81
Spain	30.06.87	508
Sri Lanka	14.04.87	2
Sudan	23.08.87	12
Suriname	31.03.87	5
Swaziland	01.07.87	7
Sweden	16.10.87	141
Switzerland	30.09.87	299
Thailand	30.06.87	11
Togo	13.11.86	–
Tonga	06.10.87	1
Trinidad and Tobago	30.06.87	178
Tunisia	14.05.86	2
Turkey	30.06.87	21
Turks and Caicos Islands	30.06.87	4
Tuvalu	08.09.87	–
Uganda	28.02.87	1 138
USSR	05.08.87	4
United Kingdom	28.09.87	1 067
United Republic of Tanzania	18.04.87	1 130
United States of America	19.10.87	43 533
Uruguay	30.06.87	13
Vanuatu	08.09.87	–
Venezuela	18.09.87	101
Viet Nam	08.09.87	–
Yugoslavia	30.06.87	11
Zaire	30.06.87	335
Zambia	30.06.87	395
Zimbabwe	28.08.87	380
Total		**63 998**

RECOMMENDATIONS FOR INDIVIDUALS LIKELY TO TRANSMIT HIV INFECTION
(based on Epidemiological Bulletin PAHO, Vol 7 NO 5/6, 1986)

Following the discussions of the Advisory Group on AIDS, the Pan American Health Organization has in December 1986, issued the following recommendations for individuals likely to transmit HIV infection:

An individual judged most likely to be infected by the Human Immunodeficiency Virus (HIV) should be provided the following information and advice:

1. The prognosis for an individual infected with HIV over the long term is not known. However, data available from prospective studies indicate that most persons will remain infected.
2. Although asymptomatic, these individuals may transmit HIV to others. Regular medical evaluation and follow-up is advised, especially for individuals who develop signs or symptoms suggestive of AIDS.
3. Infected persons should refrain from donating blood, plasma, body organs, other tissue, or sperm.
4. There is a risk of infecting others by sexual intercourse, sharing of needles, and possibly exposure of others to saliva through oral-genital contact or intimate kissing. The consistent and adequate use of condoms may reduce the transmission of HIV.
5. Toothbrushes, razors, or other implements that could become contaminated with blood should not be shared.
6. Women with a seropositive test, or women whose sexual partner is seropositive, are themselves at increased risk of acquiring AIDS. If they become pregnant, their offspring are also at increased risk of acquiring AIDS.
7. After accidents resulting in bleeding, contaminated surfaces should be cleaned with household bleach freshly diluted 1:10 in water.
8. Devices that have punctured the skin, such as hypodermic and acupuncture needles, should be steam sterilized by autoclave before reuse or safely discarded. Whenever possible, disposable needles and equipment should be used.
9. When seeking medical or dental care for intercurrent illness, these persons should inform the individuals responsible for their care of their positive antibody status so that appropriate evaluation can be undertaken and precautions taken to prevent transmission to others.
10. Testing for HIV antibody should be made available to individuals who may have been infected as a result of their contact with a seropositive person (eg sexual partners, persons with whom needles have been shared, and infants born to seropositive mothers).

YELLOW FEVER EPIDEMICS

I MALI[1]

A yellow fever epidemic has broken out in Mali in:

- Kayes Region (Kita cercle), and
- Koulikoro Region (Kati, Kangaba and Kolokani cercles).

During the month between 21 September 1987 (the date when the first cases were discovered) and 20 October, 270 cases and 135 deaths were notified.

The diagnosis has been confirmed by a serological study carried out at the Pasteur Institute:

- specific IgM was demonstrated in the serum of several patients.
- the vector, identified by an entomological survey, is Aedes furcifer.

This is therefore an intermediate-type epidemic (man-to-man transmission via a sylvatic vector).

A vaccination campaign was swiftly launched in the regions affected, and by 20 October, 1 million people had already been vaccinated. This campaign is to be extended to the whole of the exposed area, which includes the capital, Bamako.

WHO strongly advised all travellers to Mali to be vaccinated against yellow fever.

II MAURITANIA[2]

WHO has, on 2 November 1987, been informed of an epidemic of haemorrhagic fever in Southern Mauritania; some of the cases can be attributed to yellow fever.

Thorough investigations are under way to clarify the precise epidemiological situation and to identify the aetiological agent with certainty.

REFERENCES

1. WER (1987) 62:335.
2. WER (1987) 62:339.

YELLOW FEVER QUARANTINE POLICY - AUSTRALIA

Australia has recently advised the World Health Organization (WHO) in Geneva of its newly drafted Policy Statement on Human Quarantine with respect to Yellow Fever Vaccination Certificate Requirements. The Statement reads as follows:

HUMAN QUARANTINE - POLICY STATEMENT - DRAFT
YELLOW FEVER VACCINATION CERTIFICATE REQUIREMENTS

1. All persons over 1 year of age arriving in Australia and who have within the previous six (6) days been in that part of a country

   (a) in which yellow fever activity has been reported in the past ten (10) years, or
   (b) which has been reported as yellow fever infected by the World Health Organization in the Weekly Epidemiological Record within the past ten (10) years,

   must hold valid international Yellow Fever Vaccination Certificates, or they will be subject to quarantine.

AREAS FROM WHICH PERSONS ARRIVING REQUIRE VALID YELLOW FEVER VACCINATION

AT NOVEMBER 1987

in AFRICA

Burkina Faso
Cameroon
Gambia
Ghana
Ivory Coast
Mali
Mauritania
Nigeria
Senegal
Sudan
Togo
Zaire

in THE AMERICAS

Bolivia - Beni, Cochabamba, La Paz, Santa Cruz only
Brazil - Amapa, Amazonas, Goias, Maranhao, Mato Grosso, Para, Rondonia only
Columbia - Antioquia, Arauca, Boyaca, Caqueta, Casanare, Cesar, Cucuta, Cundinamarca, Guaviare, Meta, Norte de Santander, Putumayo, Santander only
Equador
Peru - Ayacucho, Cuzco, Huanuco, Junin, La Libertad, Loreto, Madre de Dios, Pasco, San Martin only
Trinidad and Tobago
Venezuala

All international travellers are advised to note that this Policy is to take effect immediately.

REYE SYNDROME SURVEILLANCE - USA (1986)

(based on MMWR Vol. 36/No. 41, 23 October 1987)

For the 1986 surveillance year (1 December 1985 - 30 November 1986), 101 cases of Reye Syndrome (RS) were reported to the Centers for Disease Control (CDC) National Reye Syndrome Surveillance System (NRSS). All met CDC's case definition of

1. acute non-inflammatory encephalopathy documented by alteration in the level of consciousness and, if available, a record of cerebrospinal fluid containing >8 leucocytes per mm^3, or without perivascular or meningeal inflammation;
2. hepatopathy documented by either biopsy or autopsy considered to be diagnostic of RS or by a threefold or greater rise in the levels of either serum glutamic-oxaloacetic transaminase (SGOT), serum glutamic-pyruvic transaminase (SGPT), or serum ammonia; and
3. no more reasonable explanation for the cerebral or hepatic abnormalities.

In the past, influenza B has been associated with an increase in RS. However, from December 1985 through November 1986, a period that encompassed widespread influenza B activity, the number of RS cases reported was less than half the lowest number previously reported during a year with extensive influenza B activity. In addition, the reported number of varicella-associated RS cases (5) was the lowest since continuous national Reye syndrome surveillance began in 1977 (Table 1).

TABLE 1 Reported cases of Reye syndrome (RS) and varicella-associated RS and incidence of RS - USA 1974 and 1977-86.

Year*	Predominant Influenza Strains Jan-May	RS cases	No. Varicella-Associated RS cases	Incidence of RS+	Fatality Rate (%)
1974	B	379	-	0.58	41%
1977	B	454	73	0.71	42%
1978	A(H3N2)	236	69	0.37	29%
1979	A(H1N1)	389	113	0.62	32%
1980	B	555	103	0.88	23%
1981	A(H3N2)	297	77	0.47	30%
1982	B	213	45	0.34	35%
1983	A(H3N2)	198	28	0.32	31%
1984	A(H1N1)+B	204	26	0.33	26%
1985	A(H3N2)	93	15	0.15	31%
1986	B	101	5	0.16	27%

* RS reporting year begins 1 December of previous year

\+ per 100 000 US population <18 years of age (US Bureau of the Census data).

- thirty States and the Pacific Island Territories reported cases
- demographic details of these cases were similar to those of previous years:

SEX: - 48% were male
- 52% were female

RACE: - 88% were white
- 8% were black
- 4% were Asian or Pacific Islanders

AGE:

0-4 YEARS OF AGE	38%
5-9	12%
10-14	34%
15-19	15%
> 20	2%

- despite heavy influenza B activity in early 1986, the reported incidence of RS among children <10 years of age was lower that year than in 1986.
- however, the incidence of RS among children >10 years of age was higher in 1986.

Consistent with previous temporal associations between incidences of RS and influenza:

. 74% of patients reported in 1986 were hospitalised during January, February, and March, the peak months of Influenza B activity;
. early 1986 had, by several measures, the most widespread influenza B activity in the past 10 years[11].

Compared with the other recent influenza B seasons -

. 1979/80, a season of relatively heavy influenza virus-activity;
. 1981/82, a season of minimal influenza virus activity; and
. 1983/84, a season of combined (H1N1) and B activity -
. the 1985/86 season showed a decline in incidence of RS for all age groups, with the smallest decline being in the 15- to 19-year age group.

Ninety two patients (91%) had an antecedent illness within 3 weeks before the onset of vomiting or neurologic symptoms compatible with RS. Of these 92 patients:

. 68 (74%) had antecedent illness which was primarily respiratory;
. 5 (5%) had varicella;
. 5 (5%) had diarrhoea without respiratory symptoms;
. 9 (10%) had fever or non-varicella rash without respiratory symptoms; and
. 5 (5%) had other or unknown signs and symptoms.

Most patients were admitted to hospitals in the three pre-comatose stages of RS:

. 3% in stage 0,
. 36% in stage 1, and
. 40% in stage 2.

Twenty (22%) of the 93 patients whose most severe stage of RS was reported reached only stage 1.

- 25% reached stage 2;
- 8% reached stage 3;
- 6% reached stage 4; and
- 27% reached stage 5.

Twelve (13%) of the patients received treatment that precluded classification.

Twenty five of the 92 patients with reported outcome died, hence the fatality rate was 27%.

MMWR Editorial Note:

Although the number of cases reported to the NRSS is presumably less than the true number of cases occurring in the United States each year, the NRSS provides crude annual comparisons of RS activity. Since a major multicentre study on RS (Public Health Service [PHS] Main Study on Reye Syndrome and Medications) was carried out during 1985 and 1986, it is unlikely that the decline in number of cases reported is an artifact of decreased reporting over these years.

The total number of reported cases of RS for 1986 is lower than would be expected based on influenza B activity during previous years. Although the number of cases reported in 1986 is slightly higher than that reported in 1985, the 1986 total is:

- less than 30% of that reported for any previous year with extensive influenza B activity; and
- less than half the total for 1982, where there was a very low level of influenza B activity (Table 1).

By available surveillance parameters, influenza B activity was heavier during the 1985/86 season than during any previous season for which simultaneous RS surveillance was conducted.[1] Also, the number of reported varicella associated RS cases was unusually low despite evidence of relatively stable national varicella activity.[2]

Both the pilot phase of the PHS Study on RS and medications, published in 1985, and the main study, published in 1987 have confirmed prior reports of an association between ingestion of aspirin during an antecedent viral illness and subsequent development of RS[3,4]. Since the increasing publicity about the association between RS and aspirin began in late 1980, much of the decline in the reported incidence of RS in the United States may be attributable to possible decrease in the frequency and/or dose of this medication used in treating children with influenza-like illness or varicella[4-6].

Preliminary results from 1987 surveillance indicate further decreases in the reported number of RS cases in the United States. As RS becomes increasingly rare in the US, interest in reporting may also start to wane. Health-care personnel and agencies are urged to continue reporting to the NRSS to assure the best possible epidemiologic monitoring of this illness. In addition, physicians, parents and older children who self-medicate should be aware of the increased risk of RS

associated with using aspirin (and possibly salicylates) to treat children, including teenagers, with influenza-like illness or chickenpox (varicella).

REFERENCES

1. MMWR (1986) 35: 470, 475-9
2. MMWR (1987) in press
3. NEJM (1985) 313: 849-57
4. JAMA (1987) 257: 1905-11
5. Pediatrics (1986) 77: 93-8
6. Pediatrics (1986) 77: 598-602

FORUM ON ADULT IMMUNISATION - USA

(based on MMWR Vol 26/No 41, 23 October 1987)

In the last week of April 1987, the Centers for Disease Control (CDC, Atlanta) sponsored the second National Community Forum on Adult Immunisation. Public health officials, private health-care providers, and representatives of professional medical associations participated. The main purpose of the forum was to assess progress since the first forum, held in January 1985. The following is a summary of the proceedings[1].

Current Status of Adult Vaccine-Preventable Diseases

Childhood vaccination programs have sharply reduced the occurrence of vaccine-preventable diseases in children. A substantial proportion of the remaining morbidity and mortality attributable to these diseases occurs among adults. The proportion of reported cases of certain vaccine-preventable diseases affecting adults ranges from 12% to 100% (Table 1).

TABLE 1. Proportion of reported cases of vaccine-preventable diseases occurring in adults - USA, 1985

Disease	Cases	
	No.	(%) Among Persons ≥20 years
Diphtheria	3	100.0%
Tetanus	83	92.5%
Hepatitis B	26,611	89.1%
Rubella	630	58.2%
Measles	2,822	14.1%
Mumps	2,982	12.4%

Thousands of patients with influenza or pneumococcal infection die annually:

- ten thousand or more excess deaths, primarily among persons >65 years of age, were associated with 19 influenza epidemics from 1957 to 1968; and

. about 40 000 pneumococcal disease-related deaths occur annually.

Mortality is highest among patients with underlying medical conditions and among older persons.

Approximately 20% of persons at high risk for influenza-related complications are vaccinated each year. In 1985,:

. less than 10% of the estimated 47.9 million persons in the United States at high risk for complications following pneumococcal infections had ever received pneumococcal vaccine;
. an average of no more than 30% (range, 2% to 90%) of those targeted to receive hepatitis B vaccine have been immunised.
. Serosurveys indicate that:

  - 49% to 66% of persons > 60 years of age lack reliably protective levels of circulating antitoxin against tetanus, and
  - 41% to 84% lack adequate protection against diphtheria.

. as many as 7 million young adults are susceptible to measles, and
. as many as 11 million women of childbearing age (15-44 years of age) are unprotected against rubella.

The incidence, health consequences, and current protection levels of adults against these diseases illustrate the need for more prevention and control activities.

Provider Education

A supportive base of informed health-care providers is vital to establishing a system that will ensure adequate vaccination levels among adults. Representatives of the:

. American Medical Association (AMA),
. American College of Physicians (ACP),
. American Academy of Pediatrics (AAP),
. American Academy of Family Physicians (AAFP), and
. American Dental Association (ADA)

described their roles in both professional and public education.

In 1986, the AMA House of Delegates passed several resolutions that call for immunising physicians and other adults to:

. maintain complete records and provide them to patients,
. promote public and professional education on adult immunisation,
. encourage third-party payment for adult immunisation, and
. promote increased use of hepatitis B vaccine.

In 1985, the ACP published the "Guide for Adult Immunization", referred to as the "Green Book"[2]. The Green Book and the recommendations on adult immunisation of the Immunization Practices Advisory Committee[3] have consolidated a vast amount of information into useful compendiums. The ACP plans to publish the second edition of the Green Book in early 1989.

. The AAP has emphasised the need for students to be properly immunised before entering high school and college.
. The AAFP

- is preparing "Immunization Guidelines", a reference source for its members that will provide information on appropriate vaccine usage in children and adults.
- publishes articles on immunisation in its monthly journal and updates its members about adult immunisation and other topics in its monthly newsletter and a bulletin on preventive medicine and through workshops, annual meetings, and co-sponsorship of education conferences.

. The ADA has promoted improved infection control practices, including

- care of dental equipment,
- use of barrier techniques, and
- immunisation of dental-care providers against hepatitis B infection.

Consumer Education

For 6 years, the National Foundation for Infectious Diseases (NFID) has conducted an annual fall public-awareness campaign supporting immunisation against influenza and pneumococcal infections. NFID's executive director has defined four approaches to promoting adult immunisation:

1) raise the consciousness of the entire nation by permanently establishing the last week of October as "National Adult Immunisation Awareness Week";
2) request financial support from other organisations for education, prevention, and control of adult vaccine-preventable diseases;
3) provide legislators with information on the cost-effectiveness of preventing influenza and other adult vaccine-preventable illness under Medicare and Medicard; and
4) encourage private health insurers to cover adult immunisation.

Voluntary organisations such as the American Lung Association contribute significantly to adult immunisation by strongly recommending appropriate immunisation to individuals they serve, by distributing educational materials and information to consumers and professionals, and through other activities.

Target Populations

While adult immunisation programs encounter some of the familiar challenges faced by childhood immunisation programs, they also face some unique problems:

- the higher cost of vaccine for adults and
- the lack of an easy method of identifying unprotected adults.

Participants discussed ways of reaching college students, older people, and high-risk patients in health maintenance organisations (HMOs).

In May 1983, the Council of Delegates of the American College Health Association adopted a pre-admission policy recommending that colleges and universities require all students to present proof of immunity to measles, rubella and other vaccine-preventable diseases as a pre-requisite to matriculation or registration. Survey results in 1986 showed that 55% of responding institutions had a pre-admission immunisation requirement[4,5]. Even though the results represent significant progress, continued implementation and enforcement of matriculation requirements for immunisation are essential.

The Office of Disease Prevention and Health Promotion (ODPHP), US Department of Health and Human Services, has conducted a 3-year public education campaign entitled "Healthy Older People"[6]. ODPHP pointed out that older people are willing to change their habits to maintain good health and will actively seek information on how to do so. A number of different media could be effective. These include:

- daily newspapers (feature articles could reach approximately 70% of older Americans who are subscribers);
- radio (news, talk, and call-in formats are preferred by older audiences); and
- television (older adults compose a large portion of the viewing audience for morning and evening news programs).

Other possibilities include activities conducted by local organisations and medical institutions and health information pamphlets provided by local drug stores.

Because of their organisational structure, HMOs can determine the effectiveness of immunisation coverage for their adult patients and can devise programs to improve vaccine utilisation. Persons for whom vaccines are recommended can be:

- systematically identified;
- sent messages recommending vaccination; and
- immunised during scheduled visits or at special clinics.

However, successful activities may vary among HMOs with different organisational structures.

Forum participants also discussed immunisation programs for:

- health-care professionals, including those in training;
- patients in nursing homes and hospitals;
- adult clients in health department settings; and
- specific target groups for hepatitis B vaccine.

Key suggestions for establishing effective programs included:

1) obtaining administrative support,
2) devising systematic ways to identify potential vaccinees and offer them vaccine,
3) providing information on benefits and risks of vaccination,
4) delivering vaccine in ways convenient to providers and patients, and
5) keeping good records

Future activities

Improving immunisation coverage for adults will require the development of:

1) effective means of assessing both the patterns of vaccine usage and immunisation coverage in target populations;
2) improved disease surveillance, particularly for influenza and pneumococcal disease;
3) improved influenza and pneumococcal vaccines;
4) effective public and professional education;
5) effective delivery systems;
6) increased resources for adult immunisations; and
7) strategies to fully implement current recommendations.

MMWR Editorial Note:

Although much progress was described, the information presented at this forum highlights the need for continued efforts to improve immunisation coverage among adults. The success of childhood immunisation programs shows that current medical technology can control vaccine-preventable diseases; however no such programs exist for adults. Significant improvements in the delivery of safe and effective vaccines to adults will take place only if changes occur in the practices of physicians and institutions caring for them. All persons providing health care to older adolescents and adults in private offices, clinics, hospitals, HMOs, and other health-care settings should review the immunisation status of patients and provide inadequately immunised persons with influenza, pneumococcal, hepatitis B, measles and rubella vaccines and with tetanus and diphtheria toxoids, when indicated. Establishing programs that systematically offer recommended vaccines to adults can increase vaccine coverage rates.

To raise the consciousness of the general public and practitioners regarding adult immunisation, CDC is participating in a coalition of public and private organisations to promote National Adult Immunisation Week, October 25-31, 1987.

The coalition's activities, coordinated by the NFID, feature the development and distribution of a media kit, public service announcements, and other public and professional educational efforts designed to reach groups at risk and health-care providers.

REFERENCES

1. DHHS publication No (CDC) 00-5101 (1987).
2. ACP-Council of Medical Societies-Committee on Immunisation (1985).
3. MMWR (1984) 33 (Suppl 1):1S-68S.
4. MMWR (1987) 36:209-12.
5. J Am Coll Health (1987) 37:247-51.
6. DHHS publication No (CDC) 00-5101 (1987):35-6.

SHIGELLOSIS SEPTICAEMIA - A CASE REPORT OF TOXIC MEGACOLON - QUEBEC (CANADA)
(based on CDWR Vol 13-32, 15 August 1987)

Shigella colitis is responsible for a small proportion of the gastroenteritis cases acquired while travelling in tropical countries[1]. Despite considerable destruction of colon mucosa, disseminated infection is rare in adults[2]. The incidence of Shigella bacteraemia is more frequently reported in paediatrics[3]. The following is a case report of an adult with Shigella dysenteriae bacteraemia and toxic megacolon, the severity of which may have been enhanced by the use of loperamide hydrochloride.

The patient, a 32 year old female with no pertinent history, had stayed in Acapulco, Mexico in December 1986, where she consumed uncooked foods, unpeeled fruits, and drank tap water. On her return to Canada on 21 December, she had a fever of 39°C, and was experiencing shivers, nausea, vomiting, and explosive diarrhoea (20 stools per day), with rectorrhagia and lower abdominal pain. No other member of her travel group experienced any intestinal symptoms.

Her family physician prescribed loperamide, 2mg orally every 8 hours. The abdominal cramping and diarrhoea subsided somewhat but still remained. On 29 December, she presented at a hospital emergency department where she was kept for observation. Two blood cultures taken on admission indicated the presence of gram-negative bacilli and she was transferred to Saint-Luc Hospital on 31 December.

On admission, clinical examination revealed a febrile patient (39°C), moderately toxic, with diffuse abdominal sensitivity to palpation and slight distension. An abdominal X-ray revealed no abnormality. Treatment with loperamide was stopped and ampicillin was begun, 1.5g intravenously every 4 hours. The following morning, the clinical picture deteriorated with arterial hypotension and signs of shock, greatly increased abdominal pain, markedly distended abdomen, and cessation of diarrhoea. Another X-ray showed a 7 cm dilation of the transverse colon with virtually total disappearance of haustrations. The patient was transferred to intensive care and the hypotension was corrected with volumic re-expansion, dopamine and steroids. Treatment with 2 ampoules of trimethoprim-sulfamethoxazole intravenously every 12 hours was initiated.

On 2 January 1987, the presence of S.dysenteriae was confirmed in the initial blood cultures. Stool cultures, however, did not show any enteric pathogens and testing for parasites was negative. The megacolon condition gradually improved and increased motility returned on 3 January (10 stools per day). The patient was kept on trimethoprim-sulfamethoxazole, 2 capsules every 12 hours, until 14 January, and her condition evolved favorably. Bacteroides fragilis and B. ovatus were isolated from subsequent blood cultures taken during the toxic megacolon episode.

The complication of bacteraemia occurs in 0.4% to 7.3% of cases of shigellosis[2,4,5]. In a recent study from Bangladesh on 2018 patients, 82 (4.1%) had positive blood cultures for Shigella. These patients had a poorer prognosis than those without bacteraemia (mortality rate of 20.7% vs 10%, $p < 0.005$)[4]. Shigella bacteraemia has been reported recently in immunocompromised adults, 1 with AIDS and 2 renal transplant patients on azathioprine[6,7]. When a polymicrobial bacteraemia from fecal flora, probably originating from an ulcerated mucosa, is combined with shigellosis, the prognosis is much poorer, with a mortality of up to 51%[4]. The presence of 2 bacteremia episodes due to Bacteroides in the patient reported here is in keeping with the progression toward a toxic megacolon; possibly the loperamide contributed to its development.

This clinical report stresses the danger of administering medication reducing intestinal motility to patients presenting with a haemorrhagic colitis. Antagonising an important defence mechanism in such a manner only:

- prolongs the course of the disease,
- decreases the effects of antibiotic therapy,
- prolongs fecal excretion of the pathogen, and
- may lead to toxic megacolon[8].

The use of these medications in bacterial dysentery is strongly discouraged. Some authors however, suggest their use for symptomatic treatment of traveller's diarrhoea without dysentery, reporting no serious side effects[9].

In conclusion, this report indicates that Shigella colitis in adults may sometimes be accompanied by bacteraemia caused by Shigella or some other aerobic or anaerobic organism in the intestinal flora. With infectious diarrhoea, it is important to do blood cultures to inform the clinician of both the aetiology and the prognosis of the infection. In patients where an invasive enteropathogen is suspected, anticholinergics and opiates should be avoided.

REFERENCES

1. NEJM (1976) 294:1299-305.
2. Am J Gastroenterol (1970) 53:234-45.
3. Am J Child (1981) 135:151-54.
4. J Infect Dis (1985) 152:784-89.
5. JAMA (1965) 192:441-43.
6. JAMA (1986) 255:3116-7.
7. Postgrad Med J (1980) 56:852-53.
8. JAMA (1973) 226:1525-28.
9. JAMA (1986) 255:757-60.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 2-11-87 to 15-11-87 BULLETIN NUMBER CDI 87/23
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	4		11		4	2	12		33
0101 ADENOVIRUS TYPE 1	4					3		1	8
0102 ADENOVIRUS TYPE 2	5			2		1		1	9
0103 ADENOVIRUS TYPE 3	3			2				2	7
0104 ADENOVIRUS TYPE 4						1			1
0105 ADENOVIRUS TYPE 5						2			2
0108 ADENOVIRUS TYPE 8				2					2
0199 ADENOVIRUS TYPING PENDING					1	1			2
0201 INFLUENZA A VIRUS	5		1	3		2	6	1	18
0202 INFLUENZA A VIRUS SUBTYPE H3N2				1		1			2
0203 INFLUENZA B VIRUS	10		2	3		14			29
0206 INFLUENZA A VIRUS SUBTYPE H1N1						3			3
0301 PARAINFLUENZA VIRUS TYPE 1						1			1
0302 PARAINFLUENZA VIRUS TYPE 2						1			1
0303 PARAINFLUENZA VIRUS TYPE 3	2	1		4	3	11	13	2	36
0304 PARAINFLUENZA VIRUS TYPE 4						1			1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	1	1	1	4	12	2	8	1	30
0500 RHINOVIRUS (ALL TYPES)				2	5		5	3	15
0600 MYCOPLASMA PNEUMONIAE	23	1	4	6		10	20	8	72
0700 CHLAMYDIA PSITTACOSIS	2			2					4
0809 COXSACKIEVIRUS A9								1	1
0816 COXSACKIEVIRUS A16	1								1
0821 COXSACKIEVIRUS A21				1					1
0901 COXSACKIEVIRUS B1						1			1
0902 COXSACKIEVIRUS B2				2		3			5
0905 COXSACKIEVIRUS B5				3					3
1005 ECHOVIRUS TYPE 5	1								1
1006 ECHOVIRUS TYPE 6		1							1
1015 ECHOVIRUS TYPE 15								1	1
1022 ECHOVIRUS TYPE 22						3			3
1028 ECHOVIRUS TYPE 28=RHINOVIRUS								1	1
1099 ECHOVIRUS TYPING PENDING								1	1
1100 POLIOVIRUS NOT TYPED			3						3
1101 POLIOVIRUS TYPE 1				2				1	3
1102 POLIOVIRUS TYPE 2				1		1		3	5
1103 POLIOVIRUS TYPE 3				1					1
1104 POLIOVIRUS-VACCINAL STRAIN						1			1
1200 MUMPS VIRUS	1			2				1	4
1300 HERPES VIRUS GROUP-NOT TYPED	23		2				1	3	29
1301 HERPES SIMPLEX VIRUS NOT-TYPED							11	5	16
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	12	1		6	2	1		23	45
1303 VARICELLA-ZOSTER VIRUS	5		3	2		1	4	4	19
1306 HERPES SIMPLEX TYPE 1	7		7	33		7	45	16	115
1307 HERPES SIMPLEX TYPE 2	10		28	67		11	77	45	238
1399 HERPES VIRUS TYPING PENDING					3				3
1401 COXIELLA BURNETI	4		1				26		31
1502 PICORNA VIRUS-NOT TYPED	2		3				6	2	13
1521 MEASLES VIRUS	1		3	2					6
1522 RUBELLA VIRUS	12			5	1	7	8		33
1532 HEPATITIS B ANTIGEN	52	2	5	15	1	18	23	17	133
1535 HEPATITIS A ANTIBODY	4					9	1	2	16
1541 CHLAMYDIA A - C TRACHOMATIS	24		1			36	52	51	164
1556 CMV - CYTOMEGALOVIRUS	1		5	15	2	6	22	9	60
1564 ROTAVIRUS	16	4	5	6	11	5	6	6	59
1565 CALICI VIRUS	1								1
1599 ENTEROVIRUS TYPING PENDING	1	2	13		5				21
9992 ROSS RIVER VIRUS							3	1	4
9993 ASTROVIRUS	1								1
9994 SMALL VIRUS (LIKE) PARTICLE		2							2
9997 KUNJIN VIRUS							2		2
Total	238	15	98	194	50	166	351	212	1,324

* Includes 14 reports from Princess Margaret Hospital for children.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 2-11-87 to 15-11-87 BULLETIN NO CDI 87/23

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.....	2	5									
0102 ADENOVIRUS TYPE 2.....		6					2				
0103 ADENOVIRUS TYPE 3.....	1	3					1				
0104 ADENOVIRUS TYPE 4.....		1									
0105 ADENOVIRUS TYPE 5.....							1				
0201 INFLUENZA A VIRUS.....	2	13							1		
0202 INFLUENZA A VIRUS SUBTYPE H3N2		2									
0203 INFLUENZA B VIRUS.....	1	19									
0206 INFLUENZA A VIRUS SUBTYPE H1N1		3									
0301 PARAINFLUENZA VIRUS TYPE 1....		1									
0302 PARAINFLUENZA VIRUS TYPE 2....		1									
0303 PARAINFLUENZA VIRUS TYPE 3....		35									1
0304 PARAINFLUENZA VIRUS TYPE 4....		1									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	1	28		1							
0600 MYCOPLASMA PNEUMONIAE.....	8	53		1							1
0700 ORNITHOSIS-PSITTACOSIS.....	2	1							1		
0809 COXSACKIEVIRUS A9.....		1									
0816 COXSACKIEVIRUS A16.....											1
0821 COXSACKIEVIRUS A21.....		1									
0901 COXSACKIEVIRUS B1.....				1							
0902 COXSACKIEVIRUS B2.....		3		1			1				
0905 COXSACKIEVIRUS B5.....		1		2							
1005 ECHOVIRUS TYPE 5.....				1							
1006 ECHOVIRUS TYPE 6.....							1				
1015 ECHOVIRUS TYPE 15.....							1				
1022 ECHOVIRUS TYPE 22.....		1									
1028 ECHOVIRUS TYPE 28=RHINOVIRUS..		1									
1101 POLIOVIRUS TYPE 1.....		2									
1102 POLIOVIRUS TYPE 2.....		3									
1104 POLIOVIRUS-VACCINAL STRAIN....							1				
1200 MUMPS VIRUS.....								1			
1301 HERPES SIMPLEX VIRUS NOT-TYPED		4	1	1				1			5
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	12	5				2					2
1303 VARICELLA-ZOSTER VIRUS.....	2	1	1	2		2					12
1306 HERPES SIMPLEX TYPE 1.....	1	7									66
1307 HERPES SIMPLEX TYPE 2.....	8	3									76
1401 COXIELLA BURNETI.....	5	9									
1521 MEASLES VIRUS.....	1										2
1522 RUBELLA VIRUS.....		4	1				1				23
1532 HEPATITIS B ANTIGEN.....	29							94			3
1535 HEPATITIS A ANTIBODY.....	4							5			
1541 CHLAMYDIA A - C.TRACHOMATIS...	12										1
1556 CMV - CYTOMEGALOVIRUS.....	8	19	1		1	2	3			1	1
1564 ROTAVIRUS.....							57				
1565 CALICI VIRUS.....							1				
9992 ROSS RIVER VIRUS.....	2										
9993 ASTROVIRUS.....							1				
9994 SMALL VIRUS (LIKE) PARTICLE...							2				
9997 KUNJIN VIRUS.....	2										
Total.....	103	237	4	10	1	6	73	101	2	1	194

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 2-11-87 to 15-11-87 BULLETIN NO CDI 87/23

Viral Identifications by Clinical Information Table 2.
Code 10 -Eye; 59 -Genital; 39 -Endo/sal gland;
38 -RES; 29 -Muscle/joint; 69 -Congenital; P3 -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
0101 ADENOVIRUS TYPE 1.....	1									
0102 ADENOVIRUS TYPE 2.....				1					1	
0103 ADENOVIRUS TYPE 3.....	1						1			
0105 ADENOVIRUS TYPE 5.....										1
0108 ADENOVIRUS TYPE 8.....	2									
0201 INFLUENZA A VIRUS.....								5	1	
0202 INFLUENZA A VIRUS SUBTYPE H3N2							1			
0203 INFLUENZA B VIRUS.....							3	4	4	
0303 PARAINFLUENZA VIRUS TYPE 3....								1		
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....								3	1	
0600 MYCOPLASMA PNEUMONIAE.....			1		1		1	6	5	
1022 ECHOVIRUS TYPE 22.....						1				1
1099 ECHOVIRUS TYPING PENDING.....								1		
1101 POLIOVIRUS TYPE 1.....									1	
1102 POLIOVIRUS TYPE 2.....							1			1
1103 POLIOVIRUS TYPE 3.....									1	
1200 MUMPS VIRUS.....			3							
1301 HERPES SIMPLEX VIRUS NOT-TYPED			4		2			10		
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			8	11			2	8	5	
1303 VARICELLA-ZOSTER VIRUS.....				1						
1306 HERPES SIMPLEX TYPE 1.....	3	35		1				1	1	
1307 HERPES SIMPLEX TYPE 2.....		148						1	3	
1401 COXIELLA BURNETI.....			1		7		1	18	1	
1521 MEASLES VIRUS.....									3	
1522 RUBELLA VIRUS.....			5		2	1			3	
1532 HEPATITIS B ANTIGEN.....									7	
1535 HEPATITIS A ANTIBODY.....								1	6	
1541 CHLAMYDIA A - C.TRACHOMATIS...	2	148							1	
1556 CMV - CYTOMEGALOVIRUS.....	2		3	3		5	1	10	12	
9992 ROSS RIVER VIRUS.....								2		
Total.....	11	331	25	17	12	7	11	71	56	3