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VIRUSES, CHLAMYDIAS, COXIELLAS, RICKETTSIAS AND MYCOPLASMAS REPORTING SCHEME: A total of 1599 reports were processed during this period. This includes 446 reports from the State Health Laboratory, Brisbane, which cover a period from October 1988 to May 1989. Consequently the tabulated data for the CDI reporting scheme has been modified for this issue. An additional table showing isolations from the State Health Laboratory, Brisbane, based on the date of sample collection has been included. In addition, viral identifications by clinical data have been tabulated with and without the reports from Brisbane.

All 42 reports (39 males, 3 females) of Q fever received during this period came from the State Health Laboratory in Brisbane. Sample collection dates ranged from October 1988 to February 1989 (see table on page ...). Occupation was provided for 16 reports including 8 meatworkers, 3 shearers and 2 farm workers. Ages ranged from 17 to 63 years.

Two hundred and forty Ross River virus reports were received during this period (including 102 from Queensland). The cumulative total for 1989 is now 1,483. Reports by collection date are shown in the following table.

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- Contributions are solicited, and do not preclude later publication elsewhere.

- Figures given may be subject to revision.

State	Date of sample collection							
	1988				1989			
	Sep	Oct	Nov	Dec	Jan	Feb	Mar*	Apr*
Western Australia	0	4	19	115	209	186	113	77
Victoria	0	2	25	104	146	194	113	52
South Australia	0	0	2	2	3	22	21	10
New South Wales	3	0	0	1	67	59	52	34
Queensland	6	1	3	5	51	45	6	13
Total	9	7	49	227	476	506	305	186

* Data are incomplete and may be amended at a later date.

GONOCOCCAL SURVEILLANCE, AUSTRALIA: 1 OCTOBER - 31 DECEMBER 1988

(Contributed by the Australian Gonococcal Surveillance Programme - AGSP, Co-ordinator Dr J.W. Tapsall, The Prince of Wales Hospital, Sydney, NSW 2031)

In this report, details are provided of the penicillin sensitivity of 506 gonococci isolated by participating laboratories throughout Australia over the period 1 October to 31 December 1988 (Table 1). The sensitivity of the isolates was determined in each centre by standardised techniques [1].

Table 1: Penicillin sensitivity of isolates of *N. gonorrhoeae* 1 October - 31 December 1988

Centre	Percentage of isolates		
	Sensitive*	Less Sensitive**	PPNG
Brisbane	15.0 (24.0)	51.3 (53.0)	24.8 (5.0)
Sydney	3.7 (11.3)	47.6 (49.0)	37.5 (21.6)
Melbourne	7.4 (13.8)	53.2 (47.4)	12.8 (24.0)
Adelaide	39.5 (10.3)	47.4 (67.2)	2.6 (8.6)
Perth	15.2 (16.2)	45.5 (54.0)	19.4 (10.8)

* Sensitive MIC = 0.004-0.016 mg/L
** Less sensitive MIC = 0.06-0.24 mg/L
Figures in parenthesis represent data for the same period in 1987.

Gonococci may become resistant to the action of penicillin either by chromosomal or extrachromosomal mechanisms. Chromosomal or 'intrinsic' resistance is manifested as a series of increases in the amount of antibiotic required to inhibit the organism, both *in vivo* and *in vitro*. Most strains of *N. gonorrhoeae* fall into a bimodal distribution when levels of intrinsic resistance are examined. These groups are categorised as 'sensitive' or 'less sensitive' and the AGSP values for these categories are shown in the footnotes to Table 1. Strains with even higher levels of intrinsic resistance are termed 'relatively resistant'. Small numbers of

these strains were isolated in this period but are not included in the table. Only a small proportion of strains isolated in Australia are now fully sensitive to penicillin. It should be remembered, however, that infections with strains classified as 'less sensitive' are still amenable to standard therapy with the penicillins.

Penicillinase producing *Neisseria gonorrhoeae* (PPNG) elaborate an inactivating enzyme whose production is controlled by extrachromosomal plasmids. There were 114 such strains isolated in AGSP laboratories in this quarter. Seventy-one of these PPNG were isolated in Sydney and in 68 of these the source of the infection was determined. Fifty-four of the infections were acquired locally and 14 overseas, mostly in South East Asia. In Melbourne there were 14 PPNG isolated with seven infections acquired locally and seven imported from South East Asia. In Brisbane there were 28 PPNG isolated in this quarter, but details of acquisition were available from only 7 of these cases, two of these seven being locally acquired. In other centres the PPNG were imported. It should, perhaps, be remembered that in those centres where PPNG are not endemic and where there is not evidence of local spread of these strains, the penicillin-based treatment regimens are entirely adequate for therapy for locally acquired disease [2]. Obviously, however, where endemic transmission of PPNG is established and where these strains constitute a high proportion of isolates, alternative treatment regimens should be used.

During 1988, a number of strains of gonococci were isolated which showed high level resistance to spectinomycin. These strains were grown from infected patients in Brisbane, Sydney, Melbourne and Darwin. The first spectinomycin resistant strain seen in Australia was isolated in Perth some years ago. To date these isolates have appeared sporadically and there has been no secondary spread. Spectinomycin resistance was seen in both PPNG and non-PPNG. Strains exhibiting high level spectinomycin resistance need to be distinguished from occasional cases where treatment failures occur with spectinomycin, although the strains are sensitive *in vivo*. The reasons for this latter phenomenon are unexplained.

The total number of strains isolated (506) is slightly higher than the 473 gonococci isolated in the same period in 1987.

REFERENCES

1. Penicillin sensitivity of gonococci in Australia: development of the Australian Gonococcal Surveillance Programme. Members of the Australian Gonococcal Surveillance Programme. Br J Vener Dis 1984;60:226-30.
2. Philpot CR, Tapsall JW. Single-dose antibiotic therapy for the treatment of uncomplicated anogenital gonorrhoea. Med J Aust 1987;146:254-6.

US IMMUNIZATION PRACTICES ADVISORY COMMITTEE (ACIP): GENERAL RECOMMENDATIONS ON IMMUNISATION

(Based on MMWR 1989;38:205-14,219-27)

The US Immunization Practices Advisory Committee (ACIP) recently reviewed its 1983 statement 'General recommendations on immunisation' [1]. Changes or new sections included:

- listing of vaccines available in the United States by type and recommended routes;
- updated schedules for immunising infants and children;
- clarification of the guidelines for spacing administration of immunoglobulins and different vaccines;
- an updated table of recommendations for routine immunisation of children infected with human immunodeficiency virus;
- listing of conditions that are often inappropriately considered contraindications to immunisation; and
- addition of information on the National Childhood Vaccine Injury Act of 1986 and the National Vaccine Injury Compensation Program.

Extracts from these recommendations have been reproduced in this article. Some sections of these recommendations, such as the sections on site of immunisation and dosage, are basic but worth repeating.

Site of immunisation

Injectable immunobiological materials should be administered where there is little likelihood of local, neural, vascular, or tissue injury. Subcutaneous injections are usually administered into the thigh of infants and in the deltoid area of older children and adults. Intradermal injections are generally given on the volar surface of the forearm except for human diploid cell rabies vaccine with which reactions are less severe in the deltoid area. The preferred sites for intramuscular injections are the anterolateral aspect of the upper thigh and the deltoid muscle of the upper arm. In most infants, the anterolateral aspects of the thigh provides the largest muscle mass and is therefore the preferred site. An individual decision must be made for each child based on the volume of the material to be administered and the size of the muscle into which it is to be injected. In adults, the deltoid is recommended for routine intramuscular vaccine administration, particularly for hepatitis B vaccine. The buttock should not be used routinely as a vaccination site for infants, children, or adults because of the risk of injury to the sciatic nerve. In addition, injection into the buttock has been associated with decreased immunogenicity of hepatitis B and rabies vaccines, presumably because of inadvertent subcutaneous injection or injection into deep fat tissue. If the buttock is used when very large volumes are to be injected or multiple doses are necessary (e.g. large doses of immunoglobulin), the central region should be avoided; only the upper, outer quadrant should be used.

Dosage

The recommendations on dosages of immunobiological materials are derived from theoretical considerations, experimental trials, and clinical experience. Administration of volumes smaller than those recommended, such as split doses or

intradermal administration (unless specifically recommended), can result in inadequate protection. Use of larger than the recommended dose can be hazardous because of excessive local or systemic concentrations of antigens.

The ACIP strongly discourages any variation from the recommended volume or number of doses of any vaccine. Some practitioners use smaller, divided, doses of vaccine, thereby reducing the total immunising dose. Others use multiple smaller doses that together equal a full immunising dose (e.g. diphtheria and tetanus toxoids and pertussis vaccine [DTP]) in an effort to reduce reactions. However, the serological response, clinical efficacy, and/or frequency and severity of adverse reactions of such schedules have not been adequately studied.

Immunisation for infants and children not immunised at the recommended time in infancy

US recommendations for the immunisation of infants and children who are not vaccinated at the recommended time in early infancy are given in Tables 1 and 2.

There are some differences between the US immunisation schedule and the Australian NH&MRC recommended immunisation schedule . Vaccination against *Haemophilus influenzae* is not available in Australia as no vaccine has been licensed. Also, the recommended age for MMR vaccine in Australia is 12-15 months instead of 15 months as in USA. The NH&MRC immunisation schedule and recommendations for the administration of individual vaccines and immunoglobulins are set out in the NH&MRC publication 'Immunisation Procedures (Third Edition)' [1] and should be consulted for specific advice on immunisation. (Note: Two amendments have been made to NH&MRC recommendations since this handbook was published:

- MMR vaccine has replaced MM vaccine [5]; and
- DTP vaccine may be administered up to 5 years of age if necessary [6].)

Spacing of immunobiological materials

Multiple doses of the same antigen

Some products require administration of more than one dose for development of an adequate antibody response. In addition, some products require periodic reinforcement (booster) doses to maintain protection. In recommending the ages and/or intervals for multiple doses, the ACIP takes into account risks from disease and the need to induce or maintain satisfactory protection.

Intervals between doses that are longer than those recommended do not lead to a reduction in final antibody levels. Therefore, it is not necessary to restart an interrupted series of an immunobiological material or to add extra doses.

In contrast, giving doses of a vaccine or toxoid at less than recommended intervals may lessen the antibody response and therefore should be avoided. Doses given at less than recommended intervals should not be counted as part of a primary series.

Table 1: U.S. ACIP recommended immunisation schedule for infants and children up to the seventh birthday not immunised at the recommended time in early infancy*

Timing	Vaccine(s)	Comments
First visit	DTP#1†, OPV#1§, MMR¶ if child is aged ≥15 mos and HbCV** if child is aged ≥18 mos	DTP, OPV, and MMR should be administered simultaneously to children aged ≥15 mos, if appropriate. DTP, OPV, MMR, and HbCV may be given simultaneously to children aged 18 mos–5 yrs.
2 mos after DTP#1, OPV#1	DTP#2††, OPV#2	
2 mos after DTP#2	DTP#3††	An additional dose of OPV at this time is optional in areas with a high risk of poliovirus exposure.
6–12 mos after DTP#3	DTP#4, OPV#3	
Preschool§§ (4–6 yrs)	DTP#5, OPV#4	Preferably at or before school entry.
14–16 yrs	Td¶¶	Repeat every 10 yrs throughout life.

*If initiated in the first year of life, give DTP#1, 2, and 3 and OPV#1 and 2 according to this schedule; give MMR when the child becomes 15 months old.
†DTP = Diphtheria and Tetanus Toxoids and Pertussis Vaccine, Adsorbed. DTP can be used up to the seventh birthday.
§OPV = Poliovirus Vaccine Live Oral, Trivalent: contains poliovirus types 1, 2, and 3.
¶MMR = Measles, Mumps, and Rubella Virus Vaccine, Live: Counties that report ≥5 cases of measles among preschool children during each of the last 5 years should implement a routine 2-dose measles vaccination schedule for preschoolers. The first dose should be administered at 9 months or the first health-care contact thereafter. Infants vaccinated before their first birthday should receive a second dose at about 15 months of age. Single-antigen measles vaccine should be used for children aged <1 year and MMR for children vaccinated on or after their first birthday. If resources do not allow a routine 2-dose schedule, an acceptable alternative is to lower the routine age for MMR vaccination to 12 months.
**HbCV = Vaccine composed of Haemophilus influenzae b polysaccharide antigen conjugated to a protein carrier. If HbCV is not available, an acceptable alternative is to give Haemophilus influenzae b polysaccharide vaccine (HbPV) at 24 months of age. If HbCV is unavailable and if the child is at high risk for *Haemophilus influenzae* type b disease, HbPV may be given at 18 months of age with a second dose at 24 months. Children aged <5 years who were previously vaccinated with HbPV between 18 and 23 months of age should be revaccinated with a single dose of HbCV at least 2 months after the initial dose of HbPV. Either HbCV or HbPV can be administered up to the fifth birthday. However, they are not generally recommended for persons ≥5 years of age.
††The second and third doses of DTP can be given 4–8 weeks after the preceding dose.
§§The preschool doses are not necessary if the fourth dose of DTP and third dose of OPV are administered after the fourth birthday.
¶¶Td = Tetanus and Diphtheria Toxoids, Adsorbed (for use in persons aged ≥7 years): contains the same dose of tetanus toxoid as DTP or DT and a reduced dose of diphtheria toxoid.

Table 2: U.S. ACIP recommended immunisation schedule for persons seven years of age or more not immunised at the recommended time in early infancy*

Timing	Vaccine(s)	Comments
First visit	Td#1*, OPV#1†, and MMR§	OPV not routinely recommended for persons aged ≥18 yrs
2 mos after Td#1, OPV#1	Td#2, OPV#2	OPV may be given as soon as 6 wks after OPV#1
6–12 mos after Td#2, OPV#2	Td#3, OPV#3	OPV#3 may be given as soon as 6 wks after OPV#2
10 yrs after Td#3	Td	Repeat every 10 yrs throughout life

*Td = Tetanus and Diphtheria Toxoids, Adsorbed (For Adult Use) (for use after the seventh birthday). The DTP doses given to children <7 years who remain incompletely immunized at age ≥7 years should be counted as prior exposure to tetanus and diphtheria toxoids (e.g., a child who previously received 2 doses of DTP needs only 1 dose of Td to complete a primary series for tetanus and diphtheria).
†OPV = Poliovirus Vaccine Live Oral, Trivalent: contains poliovirus types 1, 2, and 3. When polio vaccine is to be given to persons ≥18 years, Poliovirus Vaccine Inactivated (IPV) is preferred. See ACIP statement on polio vaccine for immunization schedule for IPV [2].
§MMR = Measles, Mumps, and Rubella Virus Vaccine, Live. Persons born before 1957 can generally be considered immune to measles and mumps and need not be immunized. Since medical personnel are at higher risk for acquiring measles than the general population, medical facilities may wish to consider requiring proof of measles immunity for employees born before 1957. Rubella vaccine can be given to persons of any age, particularly to nonpregnant women of childbearing age. MMR can be used since administration of vaccine to persons already immune is not deleterious (see text for discussion of single vaccines versus combination).

Some vaccines produce local or systemic symptoms in certain recipients when given too frequently (eg. ADT, CDT, and rabies). Such reactions are thought to result from the formation of antigen-antibody complexes. Good record keeping, careful patient histories, and adherence to recommended schedules can decrease the incidence of such reactions without sacrificing immunity.

Different Antigens

Experimental evidence and extensive clinical experience have strengthened the scientific basis for giving certain vaccines at the same time. Many of the widely used vaccines can safely and effectively be given simultaneously (ie. on the same day, not at the same site). This knowledge is particularly helpful when there is imminent exposure to several infectious diseases, preparation for foreign travel, or uncertainty that the person will return for further doses of vaccine.

Simultaneous administration: In general, inactivated vaccines can be administered simultaneously at separate sites. However, when vaccines commonly associated with local or systemic side effects (eg. cholera, typhoid and plague) are given simultaneously, the side effects can be accentuated.

In addition, the antibody responses of both cholera and yellow fever vaccines are decreased if given simultaneously or within a short time of each other. If possible, cholera and yellow fever vaccinations should be separated by at least 3 weeks. If there are time constraints and both vaccines are necessary, the injections can be given simultaneously or within a 3-week period with the understanding that antibody response may not be optimal. Decisions on the need for yellow fever and cholera immunisations should take into account the amount of protection afforded by the vaccine, the possibility that environmental or hygienic practices may be sufficient to avoid disease exposure, and the existence of vaccination requirements for entry into a country.

(Note: Further specific discussion on simultaneous administration of pneumococcal polysaccharide vaccine and influenza vaccines, and DTP, MMR and OPV or IPV is given in the original article.)

Nonsimultaneous administration: Inactivated vaccines do not interfere with the immune response to other inactivated vaccines or to live vaccines except, as noted above, with cholera and yellow fever vaccines. In general, an inactivated vaccine can be given either simultaneously or at any time before or after a different inactivated vaccine or live vaccine.

There are theoretical concerns that the immune response to one live-virus vaccine might be impaired if given within 30 days of another. Whenever possible, live-virus vaccines not administered on the same day should be given at least 30 days apart (Table 3).

Live-virus vaccines can interfere with the response to a tuberculin test. Tuberculin testing can be done either on the same day that the live-virus vaccines are administered or 4-6 weeks afterwards.

Table 3: Guidelines for spacing the administration of live and killed antigens

Antigen combination	Recommended minimum interval between doses
≥2 Killed antigens	None. May be given simultaneously or at any interval between doses.*
Killed and live antigens	None. May be given simultaneously or at any interval between doses.†
≥2 Live antigens	4-wk minimum interval if not administered simultaneously.

*If possible, vaccines associated with local or systemic side effects (e.g., cholera, typhoid, plague vaccines) should be given on separate occasions to avoid accentuated reactions.
†Cholera vaccine with yellow fever vaccine is the exception. If time permits, these antigens should not be administered simultaneously, and at least 3 weeks should elapse between administration of yellow fever vaccine and cholera vaccine. If the vaccines must be given simultaneously or within 3 weeks of each other, the antibody response may not be optimal.

Immunoglobulin

If administration of an immunoglobulin becomes necessary because of imminent exposure to disease, live-virus vaccines can be given simultaneously with the immunoglobulins, with the recognition that vaccine-induced immunity might be compromised. The vaccine should be administered at a site remote from that chosen for the immunoglobulin. Vaccination should be repeated about 3 months later unless serological testing indicates that specific antibodies have been produced. OPV and yellow fever vaccines are exceptions, however, and are not affected by the administration of immunoglobulin at any time.

Live, attenuated vaccine viruses might not replicate successfully, and antibody response could be diminished when the vaccine is given after immunoglobulin or specific immunoglobulin preparations. Whole blood or other antibody-containing blood products can interfere with the antibody response to measles, mumps, and rubella vaccines. In general, these parenterally administered live vaccines should not be given for at least 6 weeks, and preferably 3 months, after immunoglobulin administration. However, the postpartum vaccination of susceptible women with rubella vaccine should not be delayed because of receipt of Rh(D) immunoglobulin (human) or any other blood product during the last trimester of pregnancy or at delivery. These women should be vaccinated immediately after delivery and, if possible, tested in 3 months to ensure that rubella immunity was established.

If administration of immunoglobulin preparations becomes necessary after a live-virus vaccine has been given, interference can occur. Usually, vaccine virus replication and stimulation of immunity will occur 1-2 weeks after vaccination. Thus, if the interval between administration of live-virus vaccine and subsequent administration of an immunoglobulin preparation is <14 days, vaccinations should be repeated at least 3 months after the immunoglobulin product was given, unless serological testing indicates that antibodies were produced.

In general, there is little interaction between immunoglobulins and inactivated vaccines. Therefore, inactivated vaccines can be given simultaneously or at any time before or after an immunoglobulin is used. For example, postexposure prophylaxis with simultaneously administered hepatitis B, rabies, or tetanus immunoglobulin and the corresponding inactivated vaccine or toxoid does not impair the immune response and provides immediate protection and long-lasting immunity. The vaccine and immunoglobulin should be given at different sites, and standard doses of the corresponding vaccines should be used. Increasing the vaccine dose volume or number of immunisations is not indicated (Table 4).

Table 4: Guidelines for spacing the administration of immunoglobulins and vaccines

Simultaneous administration:

Immunobiologic combination	Recommended minimum interval between doses
IG and killed antigen	None. May be given simultaneously at different sites or at any time between doses.
IG and live antigen	Should generally not be given simultaneously.* If unavoidable to do so, give at different sites and revaccinate or test for seroconversion in 3 mos.

Nonsimultaneous administration:

Immunobiologic administered		
First	Second	Recommended minimum interval between doses
IG	Killed antigen	None
Killed antigen	IG	None
IG	Live antigen	6 wks and preferably 3 mos*
Live antigen	IG	2 wks

*The live-virus vaccines, oral polio and yellow fever, are exceptions to these recommendations. Either vaccine may be administered simultaneously or at any time before or after IG without significantly decreasing the antibody response [3].

Altered immunocompetence

Virus replication after administration of live, attenuated-virus vaccines can be enhanced in persons with immunodeficiency diseases and in persons with suppressed capacity for immune response as occurs with leukaemia, lymphoma, generalised malignancy, symptomatic HIV infections, or therapy with alkylating agents, antimetabolites, radiation, or large amounts of corticosteroids. Severe complications have followed vaccination with live, attenuated-virus vaccines and with live-bacteria vaccines (e.g. BCG) in patients with leukaemia, lymphoma, or suppressed immune responses. In general, these patients should not be given live vaccines, with the exceptions noted below.

If polio immunisation is indicated for immunosuppressed patients, their household members, or other close contacts, these persons should be given IPV rather than OPV. Although a protective immune response cannot be assured in the immunocompromised patient, some protection may be provided. Because of the possibility of immunodeficiency in other children born to a family in which one such case has occurred, no family members should receive OPV unless the immune statuses of the intended recipient and all other children in the family are known.

Patients with leukaemia in remission whose chemotherapy has been terminated for at least 3 months can be given live-virus vaccines. Short-term, low-to-moderate dose systemic corticosteroid therapy (<2 weeks), topical steroid therapy (e.g., nasal, skin), long-term alternate-day treatment with low to moderate doses of short-acting systemic steroids, and intra-articular, bursal, or tendon injection with corticosteroids are not immunosuppressive in their usual doses and do not contraindicate live-virus vaccine administration.

The growing number of infants and preschoolers infected with HIV has directed special attention to the appropriate immunisation of such children. The evaluation and testing for HIV infection of asymptomatic children presenting for vaccines is not necessary before decisions concerning immunisation are made. The inactivated childhood vaccines (e.g., DTP) should be given to HIV-infected children regardless of whether HIV symptoms are present. Although OPV has not been harmful when administered to asymptomatic HIV-infected children, IPV is the vaccine of choice if the child is known to be infected. The use of IPV not only eliminates any theoretical risk to the vaccinee but also prevents the possibility of vaccine virus spread to immunocompromised close contacts. Asymptomatically infected persons in need of MMR should receive it. Also, MMR should be considered for all symptomatic HIV-infected children since measles disease can be severe in symptomatic HIV-infected children. Limited studies of MMR immunisation in both asymptomatic and symptomatic HIV-infected patients have not documented serious or unusual adverse events. In addition, pneumococcal vaccine is recommended for any child infected with HIV. Influenza vaccine is recommended for children with symptoms of HIV infection (Table 5).

Table 5: U.S. ACIP recommendations for routine immunisation of HIV-infected children

Vaccine	Known HIV infection	
	Asymptomatic	Symptomatic
DTP*	Yes	Yes
OPV†	No	No
IPV§	Yes	Yes
MMR¶	Yes	Yes**
HbCV††	Yes	Yes
Pneumococcal	Yes	Yes
Influenza	No §§	Yes

*DTP = Diphtheria and Tetanus Toxoids and Pertussis Vaccine, Adsorbed. DTP may be used up to the seventh birthday.
†OPV = Poliovirus Vaccine Live Oral, Trivalent: contains poliovirus types 1, 2, and 3.
§IPV = Poliovirus Vaccine Inactivated: contains poliovirus types 1, 2, and 3.
¶MMR = Measles, Mumps, and Rubella Virus Vaccine, Live.
**Should be considered.
††HbCV = Vaccine composed of Haemophilus influenzae b polysaccharide antigen conjugated to a protein carrier.
§§Not contraindicated.

Febrile illness

The decision to administer or delay vaccination because of a current or recent febrile illness depends largely on the severity of symptoms and on the aetiology of the disease.

Although a moderate or severe febrile illness is reason to postpone immunisation, minor illnesses such as mild upper respiratory infections (URI) with or without low-grade fever are not contraindications for vaccination. In persons whose compliance with medical care cannot be assured, it is particularly important to take every opportunity to provide appropriate vaccinations.
Children with moderate or severe febrile illnesses can be vaccinated as soon as the child has recovered. This precaution of waiting until after recovery avoids superimposing adverse effects of the vaccine on the underlying illness or mistakenly attributing a manifestation of the underlying illness to the vaccine.

Routine physical examinations or measuring temperatures are not prerequisites for vaccinating infants and children who appear to be in good health. Asking the parent or guardian if the child is ill, postponing vaccination in those with moderate or severe febrile illnesses, and immunising those without contraindications to vaccination are appropriate procedures in childhood immunisation programs.

Vaccination during pregnancy

Because of a theoretical risk to the developing fetus, pregnant women or women likely to become pregnant within 3 months after vaccination should not be given live, attenuated-virus vaccines. With some of these vaccines - particularly rubella, measles, and mumps - pregnancy is a contraindication. Both yellow fever vaccine and OPV, however, can be given to pregnant women who are at substantial risk of exposure to natural infection. When a vaccine is to be given during pregnancy, waiting until the second or third trimester is a reasonable precaution to minimise concern over teratogenicity. Although there are theoretical risks, there is no evidence of congenital rubella syndrome in infants born to susceptible mothers who inadvertently were given rubella vaccine during pregnancy.

Persons given measles, mumps, or rubella vaccines can shed but not transmit these viruses. These vaccines can be administered safely to the children of pregnant women. Although live polio virus is shed by persons recently immunised with OPV (particularly after the first dose), this vaccine can also be administered to the children of pregnant women since experience has not revealed any risk to the fetus.

There is no convincing evidence of risk to the fetus from immunising the pregnant woman with inactivated virus or bacteria vaccines or toxoids. Previously immunised pregnant women who have not received tetanus and diphtheria immunisation within the last 10 years should receive a booster dose once past the first trimester. Women who are unimmunised or only partially immunised against tetanus should complete as much of the primary series as possible during the last two trimesters of the pregnancy. Depending on when the woman seeks antenatal care and the required interval between doses, one or two doses of ADT can be administered before delivery. Eligible women who do not complete the required three-dose series during pregnancy should be followed up after delivery to assure they receive the doses necessary for protection.

All pregnant women should be evaluated for immunity to rubella. Women susceptible to rubella should be immunised immediately after delivery. In addition, a woman's status as a carrier of hepatitis B should also be assessed during pregnancy. A woman infected with hepatitis B virus should be followed carefully so that her child can receive hepatitis B immunoglobulin and the hepatitis B vaccine series shortly after delivery.

There is no known risk to the fetus from passive immunisation of pregnant women with immunoglobulin. Further information regarding immunisation of pregnant women is available in the American College of Obstetricians and Gynecologists Technical Bulletin Number 64, May 1982.

Misconceptions concerning contraindications to vaccination

Some health-care providers inappropriately consider certain conditions or circumstances contraindications to vaccination. Conditions most often inappropriately regarded as routine contraindications include the following:

1. Reaction to a previous dose of DTP vaccine that involved only soreness, redness, or swelling in the immediate vicinity of the vaccination site or temperature of <40.5°C.
2. Mild acute illness with low-grade fever or mild diarrhoeal illness in an otherwise well child.
3. Current antimicrobial therapy or the convalescent phase of illnesses.
4. Prematurity. The appropriate age for initiating immunisations in the prematurely born infant is the usual chronological age. Vaccine doses should not be reduced for preterm infants.
5. Pregnancy of mother or other household contact.
6. Recent exposure to an infectious disease.
7. Breastfeeding. The only vaccine virus that has been isolated from breast milk is rubella vaccine virus. There is no good evidence that breast milk from women immunised against rubella is harmful to infants.
8. A history of nonspecific allergies or relatives with allergies.
9. Allergies to penicillin or any other antibiotic, except anaphylactic reactions to neomycin (e.g., MMR-containing vaccines) or streptomycin (e.g., OPV). None of the vaccines licensed in the United States (or in Australia) contain penicillin.
10. Allergies to duck meat or duck feathers. No vaccine available in the United States (or in Australia) is produced in substrates containing duck antigens.
11. Family history of convulsions in persons considered for pertussis or measles vaccination [7,8].
12. Family history of sudden infant death syndrome in children considered for DTP vaccination.
13. Family history of an adverse event, unrelated to immunosuppression, following vaccination.

REFERENCES

1. ACIP. General recommendations on immunization. MMWR 1983;32:1-17.
2. ACIP. Poliomyelitis prevention: enhanced-potency inactivated poliomyelitis vaccine - supplementary statement. MMWR 1987;36:795-8.
3. Kaplan JE, Nelson DB, Schonberger LB, et al. The effect of immune globulin on the response to trivalent oral poliovirus and yellow fever vaccinations. Bull WHO 1984;62:585-90.
4. NH&MRC. Immunisation Procedures. Third Edition. AGPS, Canberra, 1986.
5. NH&MRC. Measles/mumps/rubella vaccine. Report of the 104th Session (NH&MRC) 1987 (In press).
6. NH&MRC. Age limits for triple antigen vaccine. Report of the 104th Session (NH&MRC) 1987 (In press).
7. ACIP. Pertussis immunization; family history of convulsions and use of antipyretics - supplementary ACIP statement. MMWR 1987;36:281-2.
8. ACIP. Measles prevention. MMWR 1987;36:409-18,423-5.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES
BASED ON DATE OF REPORTING

PERIOD 11/5/89 TO 24/5/89

1. CODE 019 - FAIRFIELD(VIC)
2. CODE 065 - STATE LAB(WA) PMH(WA)
3. CODE 110 - IMVS(SA)
4. CODE 111 - RCH(VIC)
5. CODE 112 - ICPMR(NSW) WVH(ACT)
6. CODE 113 - PHH POW(NSW)
7. CODE 114 - RAHC(NSW)
8. CODE 115 - STATE LAB(QLD)

		019	065	110	112	113	114	115	TOTAL
0100	ADENOVIRUS NOT TYPED	0	2	0	6	2	0	8	18
0101	ADENOVIRUS TYPE 1	0	1	1	0	0	0	0	2
0102	ADENOVIRUS TYPE 2	1	0	1	0	0	0	0	2
0103	ADENOVIRUS TYPE 3	6	0	4	1	0	0	0	11
0104	ADENOVIRUS TYPE 4	3	0	0	0	0	0	0	3
0105	ADENOVIRUS TYPE 5	0	1	2	0	0	0	0	3
0107	ADENOVIRUS TYPE 7	1	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	4	0	0	0	4
0115	ADENOVIRUS TYPE 15	1	0	0	0	0	0	0	1
0119	ADENOVIRUS TYPE 19	0	0	0	2	0	0	0	2
0120	ADENOVIRUS TYPE 20	0	0	0	1	0	0	0	1
0135	ADENOVIRUS TYPE 35	1	0	0	0	0	0	0	1
0137	ADENOVIRUS TYPE 37	0	1	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	0	0	0	1	0	0	1
0201	INFLUENZA A VIRUS	0	0	0	0	0	0	3	3
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	0	0	0	0	0	1	1
0203	INFLUENZA B VIRUS	0	0	0	0	1	0	0	1
0301	PARAINFLUENZA VIRUS TYPE 1	0	0	0	1	0	0	0	1
0302	PARAINFLUENZA VIRUS TYPE 2	0	0	1	1	1	0	0	3
0303	PARAINFLUENZA VIRUS TYPE 3	1	0	0	3	0	0	6	10
0400	RESPIRATORY SYNCYTIAL VIRUS (R	4	15	8	0	5	10	33	75
0500	RHINOVIRUS (ALL TYPES)	3	3	9	2	0	0	4	21
0600	MYCOPLASMA PNEUMONIAE	1	2	4	3	3	0	25	38
0700	ORNITHOSIS-PSITTACOSIS	1	0	0	1	1	0	0	3
0904	COXSACKIEVIRUS B4	0	3	1	0	0	0	0	4
1009	ECHOVIRUS TYPE 9	8	1	0	0	0	0	0	9
1013	ECHOVIRUS TYPE 13	0	0	0	1	0	0	0	1
1028	ECHOVIRUS TYPE 28 = RHINO VIRU	0	0	0	0	0	2	0	2
1030	ECHOVIRUS TYPE 30	8	3	0	13	4	2	0	30
1100	POLIOVIRUS NOT TYPED	0	0	0	0	8	0	1	9
1102	POLIOVIRUS TYPE 2	0	0	0	1	0	0	0	1
1103	POLIOVIRUS TYPE 3	0	0	0	1	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	0	1	0	0	0	0	0	1
1200	MUMPS VIRUS	0	0	0	0	0	0	1	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	1	0	6	5	0	3	15
1301	HERPES SIMPLEX VIRUS - NOT TYP	4	1	0	102	0	0	0	107
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	2	3	18	32	4	1	49	109
1303	VARICELLA-ZOSTER VIRUS	3	1	0	1	5	0	5	15
1306	HERPES SIMPLEX TYPE 1	42	34	16	3	0	0	16	111
1307	HERPES SIMPLEX TYPE 2	77	73	20	33	0	0	26	229
1399	HERPES VIRUS TYPING PENDING	0	0	0	0	0	0	2	2
1401	COXIELLA BURNETI	0	0	0	0	0	0	42	42
1402	OTHER RICKETTSIAE	0	0	0	0	0	0	3	3
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	0	2	5	3	19	29
1521	MEASLES VIRUS	0	0	0	0	1	0	0	1
1522	RUBELLA VIRUS	1	0	3	2	0	0	6	12
1532	HEPATITIS B ANTIGEN	1	54	21	40	12	0	29	157
1535	HEPATITIS A ANTIBODY	0	5	2	0	1	0	0	8
1541	CHLAMYDIA A - C. TRACHOMATIS	13	35	26	34	3	0	22	133
1556	CMV - CYTOMEGALOVIRUS	24	1	2	16	2	3	29	77
1564	ROTAVIRUS	4	7	4	2	1	0	3	21
1565	CALICI VIRUS	0	0	0	1	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	10	3	0	13
9901	ARBOVIRUS GROUP A.(UNSPECIFIED	0	0	0	0	0	0	5	5
9990	AUSTRALIAN ENCEPHALITIS	0	0	0	0	0	0	1	1
9992	ROSS RIVER VIRUS	38	17	0	83	0	0	102	240
9995	DENGUE	0	0	0	0	0	0	1	1
9998	ARBOVIRUS GROUP B.(UNSPECIFIED	0	0	0	0	0	0	1	1
TOTAL		248	265	143	398	75	24	446	1599

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM STATE LAB, QLD (LABCODE 115)
BASED ON DATE OF SAMPLE COLLECTION

PERIOD 11/5/89 TO 24/5/89

		88			89					
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL
0100	ADENOVIRUS NOT TYPED	0	1	0	0	1	0	6	0	8
0201	INFLUENZA A VIRUS	2	1	0	0	0	0	0	0	3
0202	INFLUENZA A VIRUS SUBTYPE H3N2	1	0	0	0	0	0	0	0	1
0303	PARAINFLUENZA VIRUS TYPE 3	1	1	2	0	2	0	0	0	6
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	0	0	10	23	33
0500	RHINOVIRUS (ALL TYPES)	0	0	0	0	0	0	2	2	4
0600	MYCOPLASMA PNEUMONIAE	3	8	6	1	7	0	0	0	25
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	0	1	0	1
1200	MUMPS VIRUS	0	0	0	1	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	0	0	0	0	0	3	0	3
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	6	21	10	12	0	0	0	0	49
1303	VARICELLA-ZOSTER VIRUS	0	0	0	0	0	1	4	0	5
1306	HERPES SIMPLEX TYPE 1	0	0	0	0	0	0	13	3	16
1307	HERPES SIMPLEX TYPE 2	0	0	0	0	0	0	18	8	26
1399	HERPES VIRUS TYPING PENDING	0	0	0	0	0	0	1	1	2
1401	COXIELLA BURNETI	6	14	9	8	5	0	0	0	42
1402	OTHER RICKETTSIAE	0	1	0	2	0	0	0	0	3
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	0	0	0	0	9	10	19
1522	RUBELLA VIRUS	1	1	2	2	0	0	0	0	6
1532	HEPATITIS B ANTIGEN	0	0	0	0	0	0	21	8	29
1541	CHLAMYDIA A - C. TRACHOMATIS	0	0	0	0	0	0	8	14	22
1556	CMV - CYTOMEGALOVIRUS	1	3	2	3	1	0	14	5	29
1564	ROTAVIRUS	0	0	0	0	0	0	0	3	3
9901	ARBOVIRUS GROUP A.(UNSPECIFIED	1	0	2	2	0	0	0	0	5
9990	AUSTRALIAN ENCEPHALITIS	0	0	1	0	0	0	0	0	1
9992	ROSS RIVER VIRUS	0	3	5	51	41	0	2	0	102
9995	DENGUE	0	0	0	1	0	0	0	0	1
9998	ARBOVIRUS GROUP B.(UNSPECIFIED	0	0	0	1	0	0	0	0	1
TOTAL		22	54	39	84	57	1	112	77	446

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1A - ALL LABORATORIES.

PERIOD 11/5/89 TO 24/5/89

1. CODE 00, 99 ..... - NO ILL OR DATA
2. CODE 01, 02, 11, 12 - RESPIRATORY
3. CODE E3 ..... - ENCEPHALITIS
4. CODE M3 ..... - MENINGITIS
5. CODE 04 ..... - PARALYSIS
6. CODE 05, 13 ..... - CNS OTHER UNSPEC
7. CODE 07, 49 - GASTRO INTESTINAL
8. CODE 17, 47 - HEPATIC
9. CODE 19 ... - CVS
10. CODE 89 ... - URINARY TRACCT
11. CODE 06 ... - SKIN MUCOUS

		1	2	3	4	6	7	8	9	10	11	TOTAL
0100	ADENOVIRUS NOT TYPED	0	4	0	0	1	9	0	0	0	1	15
0101	ADENOVIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
0102	ADENOVIRUS TYPE 2	0	2	0	0	0	0	0	0	0	0	2
0103	ADENOVIRUS TYPE 3	0	3	0	0	0	1	0	0	0	0	4
0105	ADENOVIRUS TYPE 5	0	1	0	0	0	1	0	0	0	0	2
0111	ADENOVIRUS TYPE 11	1	0	0	0	0	1	0	0	0	0	2
0201	INFLUENZA A VIRUS	0	1	0	0	0	0	0	0	0	0	1
0301	PARAINFLUENZA VIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
0302	PARAINFLUENZA VIRUS TYPE 2	0	3	0	0	0	0	0	0	0	0	3
0303	PARAINFLUENZA VIRUS TYPE 3	1	7	0	0	0	1	0	1	0	0	10
0400	RESPIRATORY SYNCYTIAL VIRUS (R	1	74	0	0	0	0	0	0	0	0	75
0500	RHINOVIRUS (ALL TYPES)	2	16	0	0	0	0	0	1	0	0	19
0600	MYCOPLASMA PNEUMONIAE	1	30	0	0	0	1	0	0	0	1	33
0700	ORNITHOSIS-PSITTACOSIS	1	1	0	0	0	0	0	0	0	0	2
0904	COXSACKIEVIRUS B4	0	0	0	1	0	1	0	0	0	0	2
1009	ECHOVIRUS TYPE 9	0	0	0	8	0	0	0	0	0	0	8
1013	ECHOVIRUS TYPE 13	0	0	0	0	0	1	0	0	0	0	1
1028	ECHOVIRUS TYPE 28 = RHINO VIRU	0	2	0	0	0	0	0	0	0	0	2
1030	ECHOVIRUS TYPE 30	7	2	0	16	1	2	0	0	0	1	29
1100	POLIOVIRUS NOT TYPED	1	0	0	0	0	8	0	0	0	0	9
1102	POLIOVIRUS TYPE 2	1	0	0	0	0	0	0	0	0	0	1
1103	POLIOVIRUS TYPE 3	1	0	0	0	0	0	0	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	0	0	0	0	0	1	0	0	0	0	1
1200	MUMPS VIRUS	0	1	0	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	1	0	0	0	0	0	0	0	1	6	8
1301	HERPES SIMPLEX VIRUS - NOT TYP	35	1	0	0	0	0	0	0	0	15	51
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	9	16	2	1	0	3	7	0	0	3	41
1303	VARICELLA-ZOSTER VIRUS	4	0	0	0	0	0	0	0	0	9	13
1306	HERPES SIMPLEX TYPE 1	2	7	0	0	1	0	0	1	0	68	79
1307	HERPES SIMPLEX TYPE 2	3	0	0	0	0	0	0	0	0	108	111
1399	HERPES VIRUS TYPING PENDING	0	1	0	0	0	0	0	0	0	1	2
1401	COXIELLA BURNETI	7	4	0	0	0	4	2	0	0	0	17
1402	OTHER RICKETTSIAE	0	0	0	0	0	0	0	0	0	1	1
1502	PICORNIA VIRUS - NOT TYPED = E	1	11	0	0	2	10	1	1	1	2	29
1521	MEASLES VIRUS	0	0	1	0	0	0	0	0	0	0	1
1522	RUBELLA VIRUS	2	0	0	0	0	0	0	0	0	4	6
1532	HEPATITIS B ANTIGEN	60	0	0	0	0	0	69	0	0	0	129
1535	HEPATITIS A ANTIBODY	1	0	0	0	0	0	7	0	0	0	8
1541	CHLAMYDIA A - C. TRACHOMATIS	13	0	0	0	0	0	0	0	0	1	14
1556	CMV - CYTOMEGALOVIRUS	8	12	0	0	1	1	4	0	5	3	34
1564	ROTAVIRUS	0	0	0	0	0	20	0	0	0	0	20
1565	CALICI VIRUS	0	0	0	0	0	1	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	0	2	2	1	2	6	0	0	0	0	13
9901	ARBOVIRUS GROUP A.(UNSPECIFIED	1	0	0	0	0	0	0	0	0	2	3
9992	ROSS RIVER VIRUS	65	6	0	0	0	0	0	0	0	22	93
9995	DENGUE	0	0	0	0	0	1	0	0	0	0	1
TOTAL		229	209	5	27	8	73	90	4	7	248	900

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1B - EXCLUDING REPORTS FROM STATE LAB, QLD (CODE 115).

PERIOD 11/5/89 TO 24/5/89

1. CODE 00, 99 ..... - NO ILL OR DATA
2. CODE 01, 02, 11, 12 - RESPIRATORY
3. CODE E3 ..... - ENCEPHALITIS
4. CODE M3 ..... - MENINGITIS
5. CODE 04 ..... - PARALYSIS
6. CODE 05, 13 ..... - CNS OTHER UNSPEC
7. CODE 07, 49 - GASTRO INTESTINAL
8. CODE 17, 47 - HEPATIC
9. CODE 19 ... - CVS
10. CODE 89 ... - URINARY TRACCT
11. CODE 06 ... - SKIN MUCOUS

		1	2	3	4	6	7	8	9	10	11	TOTAL
0100	ADENOVIRUS NOT TYPED	0	1	0	0	0	8	0	0	0	1	10
0101	ADENOVIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
0102	ADENOVIRUS TYPE 2	0	2	0	0	0	0	0	0	0	0	2
0103	ADENOVIRUS TYPE 3	0	3	0	0	0	1	0	0	0	0	4
0105	ADENOVIRUS TYPE 5	0	1	0	0	0	1	0	0	0	0	2
0111	ADENOVIRUS TYPE 11	1	0	0	0	0	1	0	0	0	0	2
0301	PARAINFLUENZA VIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
0302	PARAINFLUENZA VIRUS TYPE 2	0	3	0	0	0	0	0	0	0	0	3
0303	PARAINFLUENZA VIRUS TYPE 3	1	3	0	0	0	0	0	0	0	0	4
0400	RESPIRATORY SYNCYTIAL VIRUS (R	1	41	0	0	0	0	0	0	0	0	42
0500	RHINOVIRUS (ALL TYPES)	2	12	0	0	0	0	0	1	0	0	15
0600	MYCOPLASMA PNEUMONIAE	0	12	0	0	0	0	0	0	0	0	12
0700	ORNITHOSIS-PSITTACOSIS	1	1	0	0	0	0	0	0	0	0	2
0904	COXSACKIEVIRUS B4	0	0	0	1	0	1	0	0	0	0	2
1009	ECHOVIRUS TYPE 9	0	0	0	8	0	0	0	0	0	0	8
1013	ECHOVIRUS TYPE 13	0	0	0	0	0	1	0	0	0	0	1
1028	ECHOVIRUS TYPE 28 = RHINO VIRU	0	2	0	0	0	0	0	0	0	0	2
1030	ECHOVIRUS TYPE 30	7	2	0	16	1	2	0	0	0	1	29
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	8	0	0	0	0	8
1102	POLIOVIRUS TYPE 2	1	0	0	0	0	0	0	0	0	0	1
1103	POLIOVIRUS TYPE 3	1	0	0	0	0	0	0	0	0	0	1
1104	POLIOVIRUS - MIXED VACCINAL ST	0	0	0	0	0	1	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	1	0	0	0	0	0	0	0	1	3	5
1301	HERPES SIMPLEX VIRUS - NOT TYP	35	1	0	0	0	0	0	0	0	15	51
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	3	7	2	0	0	0	4	0	0	3	19
1303	VARICELLA-ZOSTER VIRUS	4	0	0	0	0	0	0	0	0	4	8
1306	HERPES SIMPLEX TYPE 1	2	3	0	0	1	0	0	1	0	59	66
1307	HERPES SIMPLEX TYPE 2	3	0	0	0	0	0	0	0	0	89	92
1502	PICORNIA VIRUS - NOT TYPED = E	1	1	0	0	1	4	1	1	0	1	10
1521	MEASLES VIRUS	0	0	1	0	0	0	0	0	0	0	1
1522	RUBELLA VIRUS	0	0	0	0	0	0	0	0	0	4	4
1532	HEPATITIS B ANTIGEN	60	0	0	0	0	0	40	0	0	0	100
1535	HEPATITIS A ANTIBODY	1	0	0	0	0	0	7	0	0	0	8
1541	CHLAMYDIA A - C. TRACHOMATIS	13	0	0	0	0	0	0	0	0	1	14
1556	CMV - CYTOMEGALOVIRUS	4	5	0	0	0	1	3	0	2	1	16
1564	ROTAVIRUS	0	0	0	0	0	17	0	0	0	0	17
1565	CALICI VIRUS	0	0	0	0	0	1	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	0	2	2	1	2	6	0	0	0	0	13
9992	ROSS RIVER VIRUS	23	2	0	0	0	0	0	0	0	9	34
TOTAL		165	106	5	26	5	53	55	3	3	191	612

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2A - ALL LABORATORIES.

PERIOD 11/5/89 TO 24/5/89

12. CODE 10 - EYE
13. CODE 59 - GENITAL
14. CODE 39 - ENDOCRINE/SALIVARY GL.
15. CODE 38 - RETICULO-ENDOTHELIAL
16. CODE 29 - MUSCLE/JOINT
17. CODE 69 - CONGENTIAL
18. CODE P8 - PUO
19. CODE G8 - FEVER/MALAISE
20. CODE 09 - OTHER
21. CODE A1 - SIDS

		12	13	14	15	16	17	18	19	20	TOTAL
0100	ADENOVIRUS NOT TYPED	2	0	0	0	0	0	0	1	0	3
0101	ADENOVIRUS TYPE 1	0	0	0	0	0	0	0	1	0	1
0103	ADENOVIRUS TYPE 3	6	0	0	0	0	0	0	1	0	7
0104	ADENOVIRUS TYPE 4	3	0	0	0	0	0	0	0	0	3
0105	ADENOVIRUS TYPE 5	0	0	1	0	0	0	0	0	0	1
0107	ADENOVIRUS TYPE 7	1	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	1	0	0	0	0	0	0	0	1	2
0115	ADENOVIRUS TYPE 15	0	0	0	0	0	0	0	0	1	1
0119	ADENOVIRUS TYPE 19	2	0	0	0	0	0	0	0	0	2
0120	ADENOVIRUS TYPE 20	0	0	0	0	0	0	0	0	1	1
0135	ADENOVIRUS TYPE 35	0	0	0	0	0	0	0	0	1	1
0137	ADENOVIRUS TYPE 37	0	1	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	1	0	0	0	0	0	0	0	0	1
0201	INFLUENZA A VIRUS	0	0	0	1	1	0	0	0	0	2
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	0	0	0	1	0	0	0	0	1
0203	INFLUENZA B VIRUS	0	0	0	0	0	0	0	1	0	1
0500	RHINOVIRUS (ALL TYPES)	1	0	0	0	0	0	0	0	1	2
0600	MYCOPLASMA PNEUMONIAE	0	0	0	1	0	0	0	1	3	5
0700	ORNITHOSIS-PSITTACOSIS	0	0	0	0	0	0	1	0	0	1
0904	COXSACKIEVIRUS B4	0	0	0	0	0	0	0	1	1	2
1009	ECHOVIRUS TYPE 9	0	0	0	0	0	0	0	1	0	1
1030	ECHOVIRUS TYPE 30	0	0	0	0	0	0	0	1	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	6	0	0	0	0	0	1	0	7
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	55	0	0	0	0	0	0	1	56
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	25	10	6	0	2	15	10	68
1303	VARICELLA-ZOSTER VIRUS	0	0	0	0	0	0	0	2	0	2
1306	HERPES SIMPLEX TYPE 1	3	27	0	0	0	0	0	0	2	32
1307	HERPES SIMPLEX TYPE 2	0	117	0	0	0	0	0	0	1	118
1401	COXIELLA BURNETI	0	0	0	1	3	0	0	19	2	25
1402	OTHER RICKETTSIAE	0	0	0	0	1	0	0	0	1	2
1522	RUBELLA VIRUS	0	0	0	1	1	1	0	0	3	6
1532	HEPATITIS B ANTIGEN	0	2	0	0	0	0	0	1	25	28
1541	CHLAMYDIA A - C. TRACHOMATIS	6	113	0	0	0	0	0	0	0	119
1556	CMV - CYTOMEGALOVIRUS	0	7	0	2	2	4	2	9	17	43
1564	ROTAVIRUS	0	0	0	0	0	0	0	0	1	1
9901	ARBOVIRUS GROUP A.(UNSPECIFIED	0	0	0	0	2	0	0	0	0	2
9990	AUSTRALIAN ENCEPHALITIS	0	0	0	0	0	0	0	1	0	1
9992	ROSS RIVER VIRUS	0	0	0	0	134	0	0	12	1	147
9998	ARBOVIRUS GROUP B.(UNSPECIFIED	0	0	0	0	0	0	0	1	0	1
TOTAL		26	328	26	16	151	5	5	69	73	699

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2B - EXCLUDING REPORTS.
FROM STATE LAB, QLD (LABCODE 115)

PERIOD 11/5/89 TO 24/5/89

12. CODE 10 - EYE
13. CODE 59 - GENITAL
14. CODE 39 - ENDOCRINE/SALIVARY GL.
15. CODE 38 - RETICULO-ENDOTHELIAL
16. CODE 29 - MUSCLE/JOINT
17. CODE 69 - CONGENTIAL
18. CODE P8 - PUO
19. CODE G8 - FEVER/MALAISE
20. CODE 09 - OTHER
21. CODE A1 - SIDS

		12	13	14	15	16	17	18	19	20	TOTAL
0101	ADENOVIRUS TYPE 1	0	0	0	0	0	0	0	1	0	1
0103	ADENOVIRUS TYPE 3	6	0	0	0	0	0	0	1	0	7
0104	ADENOVIRUS TYPE 4	3	0	0	0	0	0	0	0	0	3
0105	ADENOVIRUS TYPE 5	0	0	1	0	0	0	0	0	0	1
0107	ADENOVIRUS TYPE 7	1	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	1	0	0	0	0	0	0	0	1	2
0115	ADENOVIRUS TYPE 15	0	0	0	0	0	0	0	0	1	1
0119	ADENOVIRUS TYPE 19	2	0	0	0	0	0	0	0	0	2
0120	ADENOVIRUS TYPE 20	0	0	0	0	0	0	0	0	1	1
0135	ADENOVIRUS TYPE 35	0	0	0	0	0	0	0	0	1	1
0137	ADENOVIRUS TYPE 37	0	1	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	1	0	0	0	0	0	0	0	0	1
0203	INFLUENZA B VIRUS	0	0	0	0	0	0	0	1	0	1
0500	RHINOVIRUS (ALL TYPES)	1	0	0	0	0	0	0	0	1	2
0600	MYCOPLASMA PNEUMONIAE	0	0	0	0	0	0	0	0	1	1
0700	ORNITHOSIS-PSITTACOSIS	0	0	0	0	0	0	1	0	0	1
0904	COXSACKIEVIRUS B4	0	0	0	0	0	0	0	1	1	2
1009	ECHOVIRUS TYPE 9	0	0	0	0	0	0	0	1	0	1
1030	ECHOVIRUS TYPE 30	0	0	0	0	0	0	0	1	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	6	0	0	0	0	0	1	0	7
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	55	0	0	0	0	0	0	1	56
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	25	2	2	0	2	8	2	41
1303	VARICELLA-ZOSTER VIRUS	0	0	0	0	0	0	0	2	0	2
1306	HERPES SIMPLEX TYPE 1	2	25	0	0	0	0	0	0	2	29
1307	HERPES SIMPLEX TYPE 2	0	110	0	0	0	0	0	0	1	111
1522	RUBELLA VIRUS	0	0	0	0	0	0	0	0	2	2
1532	HEPATITIS B ANTIGEN	0	2	0	0	0	0	0	1	25	28
1541	CHLAMYDIA A - C. TRACHOMATIS	6	91	0	0	0	0	0	0	0	97
1556	CMV - CYTOMEGALOVIRUS	0	3	0	1	1	2	2	8	15	32
1564	ROTAVIRUS	0	0	0	0	0	0	0	0	1	1
9992	ROSS RIVER VIRUS	0	0	0	0	95	0	0	9	0	104
TOTAL		23	293	26	3	98	2	5	35	56	541