

IMMUNISATION AGAINST RABIES

The Epidemiology and Health Services Evaluation Branch, Department of Health, NSW, receives numerous inquiries about protection against rabies, mainly from medical practitioners consulted by travellers who have been bitten by animals in parts of the world where rabies is endemic. The Branch, which has responsibility for authorising the distribution of rabies hyperimmune globulin and vaccine for post-exposure prophylaxis, follows current National Health and Medical Research Council recommendations¹.

Information on *pre-exposure prophylaxis* is available through Public Health Units, general practitioners and travellers' medical services. Travellers should be advised of the hazards of encountering animals in countries where rabies is endemic, and pre-exposure immunisation should be considered for veterinarians and other workers likely to come into contact with rabies virus or rabid animals.

Post-exposure prophylaxis has two components — the local treatment of wounds and immunisation. All potentially rabies-prone bite wounds should be washed immediately with soap and water. Thorough simple cleansing has been shown to be effective in reducing the risk of rabies.

Post-exposure immunisation is presently funded by the New South Wales Department of Health. Medical practitioners seeking authorisation to obtain rabies hyperimmune globulin and vaccine should contact the Manager, Infectious Diseases Section, Epidemiology and Health Services Evaluation Branch (phone (02) 217 6165). Arrangements are then made for the hyperimmune globulin and vaccine to be delivered by courier from the Commonwealth Serum Laboratories to the doctor.

Criteria for authorising the hyperimmune globulin and vaccine for *post-exposure prophylaxis* are as follows:

- The doctor requesting the hyperimmune globulin and vaccine states that the patient requiring the injections has been bitten by a mammal; and
- The animal bite occurred in a geographical location where the animal could possibly have been rabid. Rabies is epidemic or endemic in most parts of the world, *except* Oceania, Melanesia, Japan, Taiwan, the UK, Ireland and Sweden. Papua New Guinea is currently rabies-free. Recent advice promulgated by the NHMRC indicates that Balinese monkeys are rabies-free².

The time period between the alleged bite and the authorisation of the hyperimmune globulin and vaccine is of little practical relevance as the incubation period for rabies can be up to two years³.

In practice the hyperimmune globulin and vaccine are authorised for administration to anyone allegedly bitten by a furry animal in any part of the world *other than* those listed above. Usually it is impossible to determine the likelihood that the animal which bit an individual patient was potentially rabid.

A post-exposure prophylactic course usually consists of one injection of hyperimmune globulin (cost: \$489.72) and six injections of human diploid cell rabies vaccine (\$167.00 each). The cost of rabies post-exposure prophylaxis is \$1491.72 for a full course. The hyperimmune globulin is given on day 0, along with the first dose of vaccine. Subsequent vaccine doses are administered intramuscularly on days 3, 7, 14, 28 and 90 after the initial immunisation.

During the 1989 calendar year, 136 courses of post-exposure rabies prophylaxis were authorised.

Since April 1990 detailed data have been collected on all requests, using a standardised data-collection form. Over this period, the Epidemiology and Health Services Evaluation Branch received 15 requests for rabies prophylaxis (proportionately much fewer than 1989). Thirteen of the requests were authorised. One of the two requests denied was for a Balinese-monkey bite, and the other was a request for pre-exposure prophylaxis. Three of the 13 requests authorised were for non-residents of Australia who had been bitten while travelling in another country on their way to an Australian visit.

The NHMRC draws attention to the importance of local treatment of wounds as well as immunisation in the post-exposure prophylaxis.

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1. National Health and Medical Research Council. *Immunisation Procedures*, 3rd edition. Australian Government Publishing Service, Canberra, 1986.
2. National Health and Medical Research Council. *Report of the 108th Session*, Canberra, November 1989. Australian Government Publishing Service, Canberra, 1990.
3. Christie AB. *Infectious Disease*. Churchill Livingstone, Edinburgh, 1987.

MORTALITY TRENDS

The Department has obtained a complete record of all deaths of New South Wales residents which occurred during the period January 1, 1985 to December 31, 1987¹. This provides a more accurate picture of mortality in the state than death-register data because it records cases by year of death (rather than year of registration), and because it includes NSW residents who died interstate and excludes non-residents who died while visiting NSW.

Comparison of three-year-average mortality figures for 1985-87 with mortality during the 1980-1982 period highlights the following major changes.

- Since 1980-82 mortality rates have decreased at all ages (except for males aged 30-34 and to a lesser extent than between 1975-77 and 1980-82).
- The mortality decline in NSW has been less than that in other states and territories, except Tasmania. This has widened the already-existing disparity between NSW and the rest of the country.
- Of all the Areas and Regions, the Central Sydney Area and the Orana and Far West Region continue to have the highest mortality. The Northern Sydney Area continues to have the lowest mortality in the state.
- Expectation of life at birth has risen by 1.5 years in males (to 72.4 years) and by 0.9 years in females (to 79.0 years). For the first time since 1901 the increase in life expectancy for males has exceeded that for females.
- Changes in the leading causes of death observed between 1975-77 and 1980-82 have continued in the latest five-year period. The contribution of heart disease to overall mortality has declined, especially among males, while malignant neoplasms account for an increased proportion of deaths. The rapid rise in lung-cancer deaths among females presents a major challenge to the public health system. There are increased death rates from chronic respiratory conditions, drug overdose and AIDS.

Further information is available from the author (telephone (02) 219 7423).

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1. Department of Health, NSW. *Health Services Information Bulletin* No. 14. Mortality in New South Wales. State Health Publication No. 90-13.