

## Infectious diseases

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### GASTROENTERITIS IN INSTITUTIONS

In September, 84 cases of gastroenteritis among people residing in institutions were reported. Reports of institutional gastroenteritis typically peak in winter and spring, when they are often due to agents such as Norwalk-like virus. Symptoms include nausea, vomiting, diarrhoea, abdominal pain, myalgia, headache, malaise and low-grade fever. Infections can rapidly spread through the faecal-oral route (and possibly aerosolised vomitus) to cause large outbreaks within institutions such as nursing homes.

To confirm the cause of such outbreaks, stool samples from ill staff or residents should be taken early. These samples should be transported swiftly to a laboratory. In addition to standard microbiology and parasitology tests, viral studies should be specifically requested. Food samples should be held for testing, until food poisoning is excluded.

Outbreaks of gastroenteritis within institutions should be notified to the PHU on first suspicion, so recommendations on investigation, control and prevention can be made early.

PHUs can advise on prevention and control measures, but they will usually involve:

- Strict hygiene measures for staff, residents and visitors, particularly hand washing after attending the bathroom, before handling food, and before and after all resident contact. The latter applies both to in-house and visiting staff. Hand washing awareness posters next to hand-basins can be useful reminders.
- Symptomatic staff should be sent off duty, not to return until 24 hours after symptoms (diarrhoea and/or vomiting) have subsided. A delay of 48 hours may be advisable for food handlers.
- Ideally, ill residents should be isolated in a common ward or wards (cohorted), and staff attending those people should not care for people in other areas. Non-essential staff should not enter the affected area. Use of communal rooms should be discouraged during an outbreak. The facility should not accept new admissions during the outbreak period.
- Single-use disposable gloves should be worn when contact with blood and/or body fluids is anticipated. A new pair of gloves must be worn for contact with each patient. After removing gloves, hands must be washed.
- Any surface or article contaminated by vomit or faeces should first be thoroughly washed with warm water and a neutral detergent, and then disinfected with freshly prepared diluted bleach (see below). Carpet should be cleaned as above (no bleach) then professionally shampooed with industrial carpet cleaner. Colour-coding of cleaning materials is the most effective way to restrict equipment to individual areas of a facility.
- Staff (nursing or domestic) performing such cleaning should wear appropriate over clothing (e.g. plastic aprons) and disposable gloves. After cleaning activities, protective clothing should be removed while still wearing gloves, gloves removed, then hands thoroughly washed.

- Special attention should be given to cleaning of bathroom areas (including toilet flush buttons, taps and door knobs), and to environmental surfaces (e.g., benches, hand rails) that may have been contaminated by aerosol or other spread. Potentially contaminated linen should be changed.
- Potentially contaminated food (such as bedside fruit) should be discarded.

### Disinfection using diluted bleach:

Household bleach diluted 1 part bleach to 9 parts water is a cheap and effective disinfectant. The solution must be freshly prepared on a daily basis. Care must be taken when preparing the solution – staff should wear gloves, waterproof protective clothing and eye protection. Always add bleach to water – not water to bleach – and mix well. Never mix bleach with any other cleaning material.

Adapted from: South Western Sydney, South Eastern Sydney, Central Sydney Public Health Units. Control of gastroenteritis in nursing homes/hostels. 1996.

## STOP PRESS

### BAT LYSSAVIRUS INFORMATION FOR MEDICAL PRACTITIONERS

**Recommendations of the Lyssavirus Expert Group meeting, November 11, 1996, endorsed by the Communicable Diseases Network Australia New Zealand.**

This information provides a background to the newly identified bat *Lyssavirus* and recommendations for dealing with patients who have been in contact with bats.

### Background

A new *Lyssavirus* has been identified during 1996 in two species of bat in Australia. The two species are the Black flying fox (*Pteropus alecto*) and Little Red flying fox (*Pteropus scapulatus*). In November 1996 a woman in Queensland developed encephalitis, probably due to the virus, after being bitten and scratched by bats.

The genus *Lyssavirus* falls within the family Rhabdoviridae. Hitherto, six genotypes were recognised: the classic rabies virus, Lagos bat virus, Mokola virus, Duvenhage virus and the two European bat *Lyssaviruses*. These viruses have not previously been reported to occur in Australia. The newly identified seventh *Lyssavirus* is closely related to, but is distinct from, the classic rabies virus. In laboratory animals, rabies vaccine and rabies immunoglobulin are protective against this new *Lyssavirus*.

Non-rabies *Lyssaviruses* usually do not spread among terrestrial animals and human infections are rare. The newly identified *Lyssavirus* is known to infect only fruit bats (flying foxes) and humans. Overseas, insectivorous bats are known to carry other *Lyssaviruses* and therefore cannot be discounted as a potential risk, at this stage.

Rabies virus and other *Lyssaviruses* are usually transmitted to humans via bites or scratches which provide direct access of the virus in saliva to exposed tissue and nerve endings. This means most people would not be exposed to *Lyssavirus* through casual contact with bats.

As the bat *Lyssavirus* is closely related to classic rabies virus, infection may be prevented by rabies vaccine and



rabies immunoglobulin. Recommendations for administering these are provided below. Further research is being conducted into the distribution and transmissibility of the virus. Recommendations may be updated as more information becomes available.

### Recommendations

#### *Pre-exposure vaccination*

Pre-exposure vaccination should be recommended to those occupationally or recreationally exposed to bats, where there is a risk of being bitten or scratched, for example:

- bat carers;
- veterinarians;
- wildlife officers (including local government officers);
- veterinary laboratory staff;
- managers of display or research colonies;
- members of indigenous communities who may catch bats for consumption; and
- power-line workers who frequently remove bats from power lines.

Pre-exposure vaccination consists of three intramuscular doses of 1ml rabies vaccine given on days 0, 7 and 28. Doses should be given in the deltoid area, as rabies-neutralising antibody titres may be reduced after administration in other sites. In children, administration into the anterolateral aspect of the thigh is also acceptable.

#### *People bitten or scratched by bats*

The wound should be scrubbed thoroughly as soon as possible with soap and water. Proper cleansing of the wound is the single most effective measure for reducing the transmission. Where possible, the bat should be kept for further investigation by the State veterinary laboratory.

Guidelines have been developed to aid the decision on whether to administer vaccine alone or combined with rabies immunoglobulin. Factors include the type of wound, how recent the exposure was and the behaviour of the bat. Please contact your Public Health Unit, which will provide advice on the appropriate course of action.

Contact such as patting bats or exposure to urine and faeces does not constitute an at-risk exposure. Pre-exposure

vaccination should be offered if the person has ongoing contact with bats.

### CIRCULARS

#### **Australian Childhood Immunisation Register: Guidelines for the active follow-up of children overdue for immunisation. Circular 96/62, August 26, 1996.**

The Australian Childhood Immunisation Register was introduced in January 1996 to provide information about immunisation rates among Australian children, to remind parents when their children's immunisations are due and to assist in the follow-up of unimmunised children. Parents can opt out of the reminder scheme at any time. The Health Insurance Commission will soon begin forwarding to NSW Health lists of children overdue for immunisations. These data will be sent to PHUs for follow-up in collaboration with local immunisation service providers. All identifying information is covered by strict confidentiality provisions.

Follow-up of unimmunised children should be carried out in the least intrusive manner, and may include:

- a telephone call to the last immunisation provider;
- a telephone call to the parent to offer assistance;
- a letter to the parent; or
- a home visit to the parent, with the offer of on-the-spot immunisation.

Individual follow-up is preferred, but population-based approaches, such as targeted education or immunisation clinics, may be more efficient, depending on local circumstances.

To give informed consent, parents must be advised about the benefits and risks of, and contraindications to, immunisation. The home visits should be a last resort, and occur only after first attempting to contact the parent/guardian. Of course, decisions by a parent/guardian not to immunise should be respected.

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1. Benenson AS (Ed). Control of Communicable Diseases Manual (16th Edition). American Public Health Association. Washington: 1995.
  2. NHMRC. The Australian immunisation procedures handbook. 5th Edition. Commonwealth Department of Human Services and Health Canberra: 1995.