Administration of rabies vaccine and HRIG for post-exposure prophylaxis

Rabies post-exposure prophylaxis is required after potential exposure to rabies and may include human rabies immunoglobulin (HRIG) in addition to rabies vaccine. HRIG provides localised antibody protection while the person mounts an immune response to the vaccine.

Health providers should contact public health for access to and approval of rabies vaccine and HRIG.

The information below is a guide only, and health providers should refer to the <u>Australian Immunisation Handbook</u> and rabies vaccine and HRIG product information for more detailed advice.

Administering rabies vaccines

- The dose of rabies vaccine for post-exposure prophylaxis is 1.0 mL (Mérieux or Rabipur) or 0.5 mL (Verorab) given by intramuscular injection. The dose is the same for infants, children and adults.
- Rabies vaccine should be given in the deltoid area.
- Infants <12 months of age are recommended to receive the rabies vaccine in the anterolateral aspect of the thigh (the ventrogluteal site is an acceptable alternative for infants).
- **Do not give rabies vaccine in the buttock**, because post-exposure prophylaxis can fail when vaccine is given in this area.
- See Rabies and other lyssaviruses vaccines, dosage and administration.

Administering HRIG

• HRIG can be given up to and including day 7 following the first dose of a rabies vaccine (day 0). It should **not** be given from day 8 onwards as it may suppress the immune response to the vaccine.

Calculating the dose of HRIG

- The dose for HRIG is 20 IU/kg (i.e. 20 international units per kilogram of body weight).
- HRIG is supplied in 2mL vials containing 150 IU/mL.
- To calculate the dose in mL = 20 x (patient weight in kg) ÷ 150.

Infiltrating the wound with HRIG

- Infiltrate HRIG in and around **all** wounds using as much of the calculated dose as possible. Some sites may be difficult to infiltrate (e.g. fingers and hands, young children) and there may be a risk of compartment syndrome see Rabies and other lyssaviruses infiltrating wounds with HRIG.
- Any remaining HRIG that cannot safely be infiltrated in or around the wound should be given
 intramuscularly at a site away from the rabies vaccine injection site (e.g. alternative deltoid, lateral
 thigh or gluteal muscle). This is so that the HRIG does not interfere with the vaccine response.
- If the calculated volume of HRIG is not enough to completely infiltrate all wounds (e.g. extensive dog bites in a young child), dilute the HRIG in saline to make up an adequate volume.

Precautions for rabies vaccines and HRIG

- There are no absolute contraindications to use of rabies vaccine or HRIG for post-exposure prophylaxis as rabies is almost always fatal.
- Rabipur is not suitable for people with egg allergy.
- Rabies vaccine and HRIG are normally well tolerated. Pain at the injection site may occur.
- Health providers should be aware of the possibility of hypersensitivity reactions see <u>Rabies and other lyssaviruses</u> <u>Contraindications and precautions</u> and <u>adverse events</u>.
- Postpone immunisation with live vaccines after HRIG administration as per the <u>Australian</u> Immunisation Handbook.