

POST EXPOSURE PROPHYLAXIS FOR MEASLES

REASON FOR ISSUE: New document

1. INTRODUCTION

The recent outbreaks of measles at several sites in New Zealand have prompted a review of the optimal approach for prophylaxis following exposure to the virus.

The Datasheet for Normal Human Immunoglobulin (NHIG) identifies an indication for use in post-exposure prophylaxis. Measles antibody levels will have declined with the routine use of measles vaccination. Measles antibody will continue to be present in the product but at lower levels than when the current recommendations in the datasheet were developed.

NZBS has worked with the Ministry of Health to update recommendations for post-exposure prophylaxis. Revised recommendations are identified below. These are based on recommendations produced by the United Kingdom Health Protection Agency.

This document is provided for information purposes only. New Zealand Blood Service recommends that all requests for access to Normal Human Immunoglobulin relating to Measles prophylaxis are directed to an NZBS Transfusion Medicine Specialist of Medical Officer.

2. SUMMARY

- Confirmed measles cases continue to occur
- Administering MMR should be considered from 6 months onwards (or earlier on a case-by-case basis) among susceptible contacts
- Changes to the dosages of NHIG are recommended
- Intravenous Immunoglobulin (IVIG) Intragam[®]P can be considered for immune suppressed and deficient measles contacts or in those where large doses are required.

3. MMR POST-EXPOSURE VACCINATION

For infants and other healthy individuals where post-exposure vaccination is indicated MMR can be given within 72 hours of last exposure. Administering MMR should be considered from 6 months onwards among susceptible contacts. MMR can be considered on a case-by-case basis for those under 6 months of age, particularly if the child's mother has vaccine-induced immunity.

4. HUMAN NORMAL IMMUNOGLOBULIN PROPHYLAXIS FOR CONTACTS

In susceptible pregnant contacts and others where indicated (vide infra) NHIG is given to attenuate disease and can be considered up to 6 days from last exposure.

NHIG should be given to the following contacts of measles cases as soon as possible after exposure:

- Immunocompromised or immunodeficient children
- Pregnant women
- Immunocompetent children under 15 months beyond 72 hours from exposure
- People outside the 72 hour window for MMR who have not had a history of measles infection or vaccination

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The level of measles-specific antibody in Normal Human Immunoglobulin is believed to be in the order of 14-16 IU/ml. This is significantly lower than the minimum potency of 50 IU/mL identified in the British Pharmacopoeia. The current Medsafe approved datasheet for NHIG indicates a dose of 0.2mL/kg for measles post exposure prophylaxis. Based on the antibody levels identified above this is likely to be sub-optimal for effective post-exposure prophylaxis.

The new recommended doses of NHIG are:

- a) Immunocompetent infants (under 12 months) should receive 0.6mL/kg with a maximum volume of 5mL.
- b) Pregnant women, immunocompetent adults and immune compromised or deficient children should receive 0.6mL/kg with a maximum dose of 15mL (recommended in three 5 mL injections).
- c) Immunocompetent children aged 12 months and over who have not received MMR within 72 hrs should receive 0.6mL/kg with a maximum volume of 15mL.

5. PROPHYLAXIS WITH INTRAVENOUS IMMUNOGLOBULIN

IVIG (Intragam[®]P) can be considered for immune suppressed and deficient measles contacts (who may for example have a central venous catheter) or in those where large doses are required.

The recommended dose of intravenous immunoglobulin is 0.15g/kg.

Further information is available in the revised guidance from the Health Protection Agency for further information:

http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1238565307587

Questions should be directed to your local NZBS Transfusion Medicine Specialist. Contact details can be obtained via the local DHB Blood Bank.