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8th Edition Immunisation Handbook

Immunisation providers reporting to ACIR should now have received a copy of The Australian Immunisation Handbook 8th Edition 2003. The interactive version of the 8th Edition Handbook is now available on the Immunise Australia Program website at: <http://www1.health.gov.au/immhandbook/>

The full reference list is available on the electronic version and can be viewed by clicking on the superscript reference number and it will immediately open to the appropriate reference.

The Australian Immunisation Handbook is available by contacting the Australian Government on 1800 671 811 or a link has been placed on the Immunise Australia Program website from the Handbook page to order copies online at: <http://immunise.health.gov.au/handbook.htm>

Pertussis Outbreaks

Notifications of pertussis in people of all ages from both the metropolitan and rural areas continue throughout Victoria. While the number of cases notified is not as high as it has been in previous years, these recent cases are a timely warning as there was a cluster of pertussis cases in neonates in December 2003.

Infants and young children are frequently infected from adults and adolescents who have a mild infection of pertussis.

Boostrix vaccine is an adolescent / adult formulation of diphtheria, tetanus and acellular pertussis. Boostrix vaccine can be given as a single dose from 8 years of age and over to boost immunity to pertussis. Boostrix vaccine is funded for adolescents in the Year 10 school program, commencing in the 2004 school year. Vaccination with Boostrix is also recommended for parents before planning a pregnancy, or for both parents as soon as possible after delivery of an infant, but this recommendation is not part of the funded National Immunisation Program. Boostrix vaccine can be offered as a single booster for any adult expressing an interest in a pertussis containing vaccine especially if they are in close contact with infants. The vaccine would need to be purchased by prescription.

I M M U N I S A T I O N

FAQ's - Boostrix Vaccine

2004 sees the commencement of the introduction of diphtheria, tetanus and acellular pertussis (dTpa) vaccine for Year 10 students. This is the second major change to the National Immunisation Program (NIP) schedule. The first major change was the drop in the 18 month dose of DTPa vaccine in September 2003. Year 10 students will be offered a booster dose of diphtheria, tetanus plus the new addition of a whooping cough antigen in a vaccine called Boostrix.

Q. Why is Boostrix now recommended at Year 10 level instead of ADT?

A. Currently in Australia, over 60% of pertussis notifications occur in persons over 10 years of age. The protective efficacy of both natural infection and the pertussis vaccine wane over time, therefore supporting the need for booster doses to reduce morbidity in these persons as well as reduce transmission to those most at risk (infants <6 months). Immunisation of adolescents who have a high risk of pertussis infection is expected to result in the greatest health benefits. This is why an adult/adolescent formulation of acellular pertussis-containing vaccine (dTpa) is now available to Year 10 students for booster vaccination.

Q. Why might a parent be concerned for their child receiving a vaccine with a whooping cough (pertussis) component in Year 10?

A. These children as infants would have received a whole cell pertussis containing vaccine called Triple Antigen (DTPw). This vaccine was associated with common significant reactions like fever and large areas of redness and swelling around the injection site. A more distressing side effect for the parent was the occurrence of

inconsolable or persistent crying, which lasted between 24 and 48 hours, convulsions, hypertonic-hyporresponsive episodes (HHE) and high pitched screaming. These side effects resulted in a group of children who have not received a course of pertussis.

Q. What is the difference between Triple Antigen and Boostrix vaccines?

A. The main difference between Triple Antigen and Boostrix vaccines is the pertussis-containing component. The Triple Antigen vaccine contained a whole cell of the pertussis bacteria whereas Boostrix (like Infanrix) does not contain the whole cell but various combinations of purified antigens (acellular) from the pertussis bacteria. Acellular vaccines cause significantly less reactions than whole-cell pertussis vaccines. Acellular pertussis component vaccines have been used since February 1999 for both primary and booster vaccination schedules in Australia and have been extremely well tolerated.

Q. If I have a Year 10 student who as an infant could not have the Triple Antigen vaccine and had one or more doses of CDT vaccine instead, can this student still have Boostrix?

A. Yes. On page 136 of the 8th edition immunisation handbook states: "*in adolescents and adults who received one or more doses of child-formulated diphtheria-tetanus (CDT) vaccine rather than DTP vaccine for primary immunisation, a single dose of dTpa is appropriate for protection against pertussis.*"

Q. Does a student receive Boostrix if they had an anaphylactic reaction to Triple Antigen as a child?

A. No. Refer the child to the Royal Children's Hospital (RCH) Immunisation clinic for further



O N P R O G R A M M

advice. A GP referral is required. Phone 9345 6180.

Q. Do I still administer Boostrix to a Year 10 student who was diagnosed with whooping cough as a child?

A. Yes. As protective efficacy of natural infection wanes over time, a booster dose is required. Therefore previous infection is not a contraindication.

Q. Do I still administer Boostrix if a Year 10 student has received another vaccine within the last month?

A. Boostrix can still be administered as it is an 'inactivated' vaccine.

Q. What if I have a Year 10 student recently arrived from overseas who has no documented evidence of a primary immunisation course against diphtheria tetanus and pertussis, can I still administer Boostrix?

A. No. As there is no data on the safety, immunogenicity or efficacy of Boostrix when given as a primary vaccination series, Boostrix should not be used where primary immunisation of an adolescent for diphtheria and tetanus is incomplete. ADT should be used for a primary course (i.e. 3 doses, see catch up pg 173, 8th edition immunisation handbook) with Boostrix able to be administered as a booster dose on a single occasion 10 years later.

Q. Can Boostrix be administered to a student who has already received a Boostrix dose prior to the Year 10 school program?

A. No. Boostrix is recommended in Australia for a single booster vaccination of individuals aged 8 years and older. Therefore once a single booster dose has been given, subsequent booster doses to the same individual should not be administered.

Q. What if a Year 10 student received a tetanus containing vaccine within the last five years?

A. Another tetanus containing vaccine such as ADT should be withheld until five years have elapsed since the last tetanus dose to avoid hypersensitivity.

Q. What happens if a parent is still unsure and does not wish their child to be immunised with Boostrix?

A. If the parent is still unsure and you are unable to assist with their concern about Boostrix, you can refer them to the Royal Children's Immunisation Clinic advice line on 9345 6399 or contact DHS on 1300 882 008. If they still do not wish for their child to be immunised with Boostrix you should offer them ADT vaccine instead.

Q. What are the contraindications for Boostrix?

A. There are three absolute contraindications to pertussis-containing vaccines:

- Encephalopathy (collapse or periods of unconsciousness or lack of awareness) without another evident cause within seven days of vaccination.
- Immediate severe allergic reaction following a previous dose of a pertussis containing vaccine.
- Known hypersensitivity to any component of the vaccine

If encephalopathy is vaccine-related, the pertussis component is the most likely cause. Further vaccination with diphtheria and tetanus vaccines (i.e. ADT) can be undertaken but should occur under careful observation.

Q. What are the components of the Boostrix vaccine?

A. The active ingredients of Boostrix are non-infectious substances (i.e. inactivated) from tetanus and



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diphtheria bacteria plus purified proteins of pertussis bacteria, aluminium salts, preservatives (thiomersal free), salt, glycine and water.

Q. What are the side effects associated with Boostrix?

A. Common side effects include a mild temperature (below 39°C), soreness redness and swelling at the injection site and feeling unwell. Other symptoms can include tiredness and headache.

Q. What are the recommendations for use in pregnancy?

A. Adequate human data on use of Boostrix during pregnancy is not available, so it should only be given in pregnancy when the possible advantages outweigh the possible risks for the foetus. As with all inactivated vaccines, one does not expect harm to the foetus.

Q. How protective is Boostrix?

A. During clinical trials, Boostrix was found to be 92% to 97% protective for the pertussis component and 100% protective for the diphtheria and tetanus components.

Q. From what age can Boostrix be administered?

A. The NHMRC recommends that it may be used in children aged 8 years and older (this does differ from product information).

Q. Administration of Boostrix

A. Boostrix is administered by deep intramuscular injection into the deltoid muscle, inserted at a 60° angle.

Q. Is there a Boostrix fact sheet available?

A. A new Adult/ Adolescent Boostrix fact sheet will be available in February for ordering from the Immunisation Resource order form. The order form will be updated to include this fact sheet.

Sources:

- The Australian Immunisation Handbook 8th edition
- Information for Health Professionals Data Sheet – Boostrix (www.medsafe.govt.nz/profs/Datasheet/b/Boostrixinj.htm)
- Boostrix product information (GlaxoSmithKline)



Preschool Vaccine Local Reaction Study

Do you have any patients who had a local reaction (redness and swelling) after their 18 month DTPa (Diphtheria-Tetanus-Pertussis) vaccine?

Are they due their routine preschool vaccines?

If yes, the Immunisation Service at the Royal Children's Hospital would like your help with a new study. The study compares a new preschool low dose vaccine, with the vaccine currently given to children at 4-5 years of age, to see whether the new vaccine reduces the frequency or severity of local reactions.

If you would like more information about this study, please contact study staff at the Immunisation Service on 9345 6599

Royal Children's Hospital



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Measles Outbreak

Measles continues to occur in the 18 to mid 30's age group especially involving international travellers and those linked to people who have recently travelled overseas.

If seeing patients prior to overseas travel and they are aged 37 years or younger, please confirm their measles vaccine status. Some children and adolescents may have missed their MMR vaccines therefore it is important to see documented evidence of two doses after four years of age.

Protection against measles requires two doses of vaccine. In an immunisation catch up scenario the two doses of MMR vaccine can be given a minimum of four weeks apart.

Pneumovax 23 Vaccine

The 23-valent pneumococcal polysaccharide vaccine (Pneumovax 23), is recommended for all adults over 65 years of age and Aboriginal and Torres Strait Islander people aged 50 years and over. People with medical risk factors (both children and adults) are recommended to receive this vaccine however not all cases are supplied free (see pages 223 to 226 of the 8th Edition Immunisation handbook). The Immunisation Program will supply free Pneumovax 23 vaccine to the following groups:

- Adults aged 65 years and over
- Aboriginal and Torres Strait Islander (ATSI) people aged 50 years and over
- Aboriginal and Torres Strait Islanders 15 to 49 years of age with medical risk factors
- Children under five years of age with specific medical risk factors ie.
 - A booster dose of Pneumovax 23 at 4 to 5 years of age

The Immunisation Program has limited funding for the supply of Pneumovax 23 vaccine. Therefore priority for the free vaccine should be directed to people over 65 years receiving Pneumovax 23 for the first time. Careful ordering, stocking and use in the eligible groups only will assist in preventing a shortage of free Pneumovax 23.

Pneumovax 23 booster:

The 8th Edition Immunisation handbook states the recommendation for booster doses of Pneumovax 23 is as follows:

- Non-indigenous adults aged 65 years and older: a single revaccination 5 years later.
- Aboriginal and Torres Strait Islander adults aged 15 to 49 years with risk factors: revaccination 5 years after the first dose, then again at age 50 years or 10 years after the first revaccination, whichever comes later.

Meningococcal C National Program

In 2004 the meningococcal C conjugate vaccine will continue to be supplied to all immunisation providers for mop up of children eligible in 2003 (ie. one to 19 years inclusive) for free meningococcal C conjugate vaccine.

The six to 14 year olds (in 2003) are only eligible for free meningococcal conjugate C vaccine through a school based immunisation program. If a child has missed their school program they can be directed to and vaccinated through the local government immunisation service.

All other children one to five years and adolescents 15 to 19 years (in 2003) can be mopped up with meningococcal C conjugate vaccine through any immunisation provider.

Prevenar Shortage

Wyeth the manufacturer of the childhood pneumococcal vaccine Prevenar, has reported a shortage of vaccine for the commercial market affecting the Australian Standard Vaccination Schedule. The shortage is predicted to last into April 2004.

Wyeth have assured customers that infants and children who have commenced a course during the limited period of restricted supply, Wyeth will work in partnership with health authorities to distribute available stocks of Prevenar in the most appropriate manner. Priority has been given to the following groups of infants:

- Those infants that identified as being at highest risk and part of the National Childhood Pneumococcal Vaccination Program.
- Those infants who less than 12 months of age have already commenced vaccination Prevenar will be set aside for second and third doses.



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Q. Can I use another vaccine instead of Prevenar for healthy infants?

A. No, there are no alternative vaccines for children under 2 years. Two different types of pneumococcal vaccines are available - Prevenar (conjugate) and Pneumovax 23 (polysaccharide). Pneumovax 23 vaccine is a polysaccharide type vaccine, produced by Merck, Sharp & Dohme. This vaccine is effective in older children and adults but does not work well in children younger than two years of age as their immature immune system cannot respond to the vaccine. As such, Pneumovax 23 is not indicated for routine use in children less than 2 years of age.

Prevenar is the only pneumococcal vaccine approved for use in children less than 2 years of age and is the only one recommended on the Australian Standard Vaccination Schedule for use in all children under 2 years of age. This is because Prevenar is a conjugate vaccine and young children's immature immune systems are able to generate a good immune response.

Q. How long can I wait for my next Prevenar dose if my child has already commenced vaccination with Prevenar?

A. Doses of Prevenar are usually given at 2, 4 and 6 months of age on the Australian Standard Vaccination Schedule. There is a minimum interval between doses of 4 weeks however there is no maximum interval between doses of Prevenar, e.g. child who has received one dose of Prevenar at 2 months of age may be given subsequent doses at 6 and 10 months of age to complete the primary series. Full protection will not occur until all doses are given.

Influenza Vaccine Orders

If you have not placed your initial influenza and pneumococcal vaccine order with the Immunisation

Program then now is the time. Vaccine orders are being placed now for delivery in the last week of February. Consider your refrigerator capacity when placing the initial order. A check of your electronic database for people over 65 years (eligible for free influenza and pneumococcal vaccine) will greatly assist in determining the number of free vaccines you will need to order.

Surveillance of Notifiable Infectious Diseases in Victoria

The Department of Human Services (DHS) routinely publishes annual and quarterly surveillance reports on the internet and in hard copy. The following website will provide state wide and regional reports to observe the incidence of notifiable diseases including vaccine preventable diseases. This data is useful when discussing disease incidence with families: <http://www.dhs.vic.gov.au/phd/snid/cdrsr.htm#reports>

In Victoria, the Communicable Diseases Section of DHS conducts surveillance on infectious diseases to pinpoint outbreaks and to prevent the spread of infection. Notifications of infectious diseases from medical practitioners and laboratories are the fundamental component of the surveillance.

Change of Telephone contact

The Immunisation Program is updating the phone system to improve the customer service delivery of information and assistance. As of mid February 2004 the new telephone contact number for the Immunisation Program will be **1300 882 008**. This number is now active but will undergo further interactive improvement in the next few weeks before it is fully operational.

For further information on the Immunisation Program:

Postal address: Immunisation Program, 17/120 Spencer Street, Melbourne 3000

Phone: 1300 882 008

Fax: (03)9637 4653 or (03) 9637 4186

Email: immunisation@dhs.vic.gov.au

Webpage: www.dhs.vic.gov.au/phd/immunisation/

