

Immunisation Subcommittee of PTAC
Meeting held 10 February 2014

(minutes for web publishing)

Immunisation Subcommittee minutes are published in accordance with the *Terms of Reference for the Pharmacology and Therapeutics Advisory Committee (PTAC) and PTAC Subcommittees 2008*.

Note that this document is not necessarily a complete record of the Immunisation Subcommittee meeting; only the relevant portions of the minutes relating to Immunisation Subcommittee discussions about an Application or PHARMAC staff proposal that contain a recommendation are generally published.

The Immunisation Subcommittee may:

- (a) recommend that a pharmaceutical be listed by PHARMAC on the Pharmaceutical Schedule and the priority it gives to such a listing;
- (b) defer a final recommendation, and give reasons for the deferral (such as the supply of further information) and what is required before further review; or
- (c) recommend that PHARMAC decline to list a pharmaceutical on the Pharmaceutical Schedule.

These Subcommittee minutes were reviewed by PTAC at its meeting on 8 & 9 May 2014, the record of which will be available in July 2014.

Record of the Immunisation Subcommittee of PTAC
Meeting held 10 February 2014

1 General review of currently funded childhood vaccines

- 1.1 The Subcommittee noted the review of funded vaccines provided by PHARMAC staff.

In relation to rotavirus

- 1.2 The Subcommittee noted that, effective 1 July 2014, RotaTeq vaccine will be listed in the National Immunisation Schedule with a restriction allowing administration of the first dose in infants up to 15 weeks, while the registered datasheet for Rotateq recommends the first dose be administered at 6 to 12 weeks of age. The Subcommittee noted that the recommendation for use up to 15 weeks was the registered indication for Rotarix vaccine.
- 1.3 The Subcommittee noted that the recommendation for the first dose to be administered up to 15 weeks was in line with international recommendations in countries where both RotaTeq and Rotarix products are available on the market.
- 1.4 The Subcommittee noted that while overall vaccination completion rates at two years of age were 95%, there was still a considerable amount of work required to increase the prevalence on on-time vaccine uptake in younger children. The Subcommittee recommended that the upper limit of 15 weeks for rotavirus vaccination remain, as it provided the opportunity to vaccinate infants who had presented late for their first vaccination.
- 1.5 The Subcommittee noted that the reference in the indication restrictions in the Pharmaceutical Schedule to completing the vaccination course by 8 months was also off label, as the datasheet refers to an upper limit of 32 weeks. The Subcommittee considered a restriction expressed in units of months was more appropriate in New Zealand, as the National Immunisation Schedule refers to 'months' for all vaccinations (apart from the initial 6 week vaccination) and the risk of intussusception occurring in slightly older infants (weeks 33 to 34-5) is minimal.
- 1.6 The Subcommittee recommended that PHARMAC note in the Pharmaceutical schedule that these two criteria are off-label.

In relation to varicella

- 1.7 The Subcommittee noted that, in response to consultation, PHARMAC had received a request to widen access to varicella vaccine to include

children with inborn errors of metabolism. The Subcommittee noted two papers provided by the applicant (Kingsley et al. J Pediatr. 2006;118:e460-e470; Vargheses et al. Arch Dis Child 2011;96:99-100.).

- 1.8 The Subcommittee noted that in some instances patients with inborn errors of metabolism deteriorate after receiving a live vaccine, but considered this was an acceptable vaccine side effect likely far less severe than wils disease. The Subcommittee noted that, in the Irish cohort study (Varghese et al), the incidence of hospitalisation following varicella infection in patients with inherited metabolic disorders was higher than in apparently healthy children (5 out of 64 (8%) vs 0.01%).
- 1.9 The Subcommittee recommended that varicella vaccine be funded with a high priority, on the recommendation of a paediatrician, for children with inborn errors of metabolism at risk of major metabolic decompensation, and for adults with inborn errors of metabolism at risk of major metabolic decompensation with no clinical history of varicella. The Subcommittee considered that there would be approximately 10 to 20 children and very few adults who would meet these criteria.
- 1.10 The Subcommittee considered that adult patients with no clinical history of varicella who underwent significant immunosuppression could be at risk of varicella infection and severe sequelae. The Subcommittee **recommended**, with a high priority, a cocoon funding strategy of household contacts for adult patients with no clinical history of varicella who were undergoing significant immunosuppression.
- 1.11 The Subcommittee **recommended**, with a high priority, that point 5 of the current restrictions to use of varicella vaccine be amended as follows (deletions in strike through, additions in bold):

Maximum of two doses for any of the following:

1. For non-immune patients:
 - 1.1 with chronic liver disease who may in future be candidates for transplantation; or
 - 1.2 with deteriorating renal function before transplantation; or
 - 1.3 prior to solid organ transplant; or
 - 1.4 prior to any elective immunosuppression*.
2. For patients at least 2 years after bone marrow transplantation, on advice of their specialist.
3. For patients at least 6 months after completion of chemotherapy, on advice of their specialist.
4. For HIV positive non immune to varicella with mild or moderate immunosuppression on advice of HIV specialist.
5. For household contacts of paediatric patients who are immunocompromised, or undergoing a procedure leading to immune compromise where the household contact has **no clinical history of varicella**.
 - ~~5.1 adult household contact – a negative serology result for varicella; or~~
 - ~~5.2 child household contact – no clinical history of varicella or negative varicella serology.~~
6. **For household contacts of adult patients who have no clinical history of varicella and who are severely immunocompromised, or undergoing a procedure leading to immune compromise, where the household contact has no clinical history of varicella.**

* Immunosuppression due to steroid or other immunosuppressive therapy must be for a treatment period of greater than 28 days

- 1.12 The Subcommittee considered that there may be as many as 500 patients who would meet the adult criteria.

In relation to Pneumococcal vaccine

- 1.13 The Subcommittee noted that, effective from 1 July 2014, Prevenar 13 vaccine will be listed in the National Immunisation Schedule and the 10-valent Synflorix vaccine will be phased out and delisted from the Pharmaceutical Schedule from 1 October 2014.
- 1.14 The Subcommittee noted PHARMAC had received a response to consultation requesting funding of PCV 13 for patients with HIV. The Subcommittee **recommended** that the restriction for vaccination with pneumococcal vaccine be amended to enable vaccination of children with HIV as follows (additions in bold):

Any of the following:

1. A primary course of up to four doses for previously unvaccinated individuals up to the age of 59 months inclusive; or
2. Up to three doses as appropriate to complete the primary course of immunisation for individuals under the age of 59 months who have received one to three doses of PCV10; or
3. One dose is funded for high risk children who have previously received four doses of PCV10; or
4. Up to an additional four doses (as appropriate) are funded for (re-)immunisation for **patients with HIV**, patients post HSCT, or chemotherapy; pre- or post splenectomy; functional asplenia, pre- or post- solid organ transplant, renal dialysis and other severely immunosuppressive regimens up to the age of 18; or
5. For use in testing for primary immunodeficiency diseases, on the recommendation of an internal medicine physician or paediatrician.

Note: please refer to the Immunisation Handbook for the appropriate schedule for catch up programmes

- 1.15 The Subcommittee **recommended** PHARMAC raise at the next meeting of the Subcommittee the issue of vaccination of HIV positive adults, and separately definitions of immunocompromised, immune deficient and immunosuppressed and the appropriateness of the vaccines for each of these conditions.

In relation to the meningococcal vaccine

- 1.16 The Subcommittee noted that, effective from 1 July 2014, two conjugated meningococcal vaccines would be available – the monovalent meningococcal C and a quadravalent A, C, Y, W-135.
- 1.17 The Subcommittee **recommended** the Special Authority criteria applicable to the conjugate meningococcal vaccines (Neisvac-C and Menactra) be amended as follows:

Any of the following:

1. ~~One dose~~ **Up to three doses** for patients pre- and post-splenectomy; or
2. One dose every five years for patients with **HIV**, functional asplenia or **pre or** post solid organ transplant; or
3. One dose for close contacts of meningococcal cases; or
4. A maximum of two doses for bone marrow transplant patients; or
5. A maximum of two doses for patients following immunosuppression*.

Note: children under seven years of age require a second dose three years after the first and then five yearly.

***Immunosuppression due to steroid or other immunosuppressive therapy must be for a period of greater than 28 days.**

- 1.18 The Subcommittee **recommended** that severely immunocompromised patients up to the age of 26 should be included in the Special Authority criteria for quadrivalent meningococcal C vaccine with a high priority. The Subcommittee considered that there would be a small number of extra patients in this group.

In relation to the Hepatitis A vaccine

- 1.19 The Subcommittee noted that PHARMAC had received a request that non-immune patients with HIV infection be included in the patient groups eligible for vaccination with Hepatitis A vaccine. The Subcommittee requested further information and that Hepatitis A be added to the vaccines being reviewed for vaccination of HIV patients at its next I meeting.

In relation to diphtheria, tetanus, acellular pertussis and inactivated polio vaccine

- 1.20 The Subcommittee noted that there had been an error in the decision paper considered by PHARMAC Board paper, and consequent Board resolution, at the end of 2013 recommending the listing of various vaccines. The Subcommittee noted that the intent had been to amend the restriction for DTaP-IPV to enable its use up to the age of 10 i.e. ages 0-9 (currently up to age 7, i.e. ages 0-6 years) and that PHARMAC was correcting the error.
- 1.21 The Subcommittee noted that there had been a request for hexavalent vaccine (DTaP-IPV-HepB/Hib) to be used up to the age of 10 years (ages 0-9). The Subcommittee noted that this is standard advice in Australia and the United Kingdom (UK) and that it is useful for the vaccination of children who have missed some of their primary course of vaccines. The Subcommittee considered that the benefit of this would be a reduction in the number of injections a patient would receive, but there would be no difference in clinical outcomes. The Subcommittee **recommended** the amendment be made, with a **medium** priority

In relation to Hepatitis B vaccine

- 1.22 The Subcommittee noted that PHARMAC had received a request for patients with chronic kidney disease (CKD) stage 4 (i.e., severe renal failure prior to endstage (pre-dialysis)) to be included in the patient populations eligible for vaccination with the 10 mcg hepatitis vaccine. Members noted the applicant had reasoned that these patients are at high risk of progressing to endstage renal disease (ESRD), and that by proactively vaccinating this group there would be a higher chance of achieving successful immunisation, and patients would enter a dialysis programme immune rather than being exposed for up to 6 months when they awaited full immunity. Members noted that this may be a considerably larger proportion of the CKD population than are currently eligible.
- 1.23 The Subcommittee considered that there was insufficient information presented and recommended that further information be presented at the next Subcommittee meeting regarding the size of the population, the timing to dialysis, the progression rate from stage 4 to stage 5 CKD, (SD) the efficacy of the vaccine at stage 4 and stage 5 CKD, and requested that a rapid CUA be undertaken and included in the information presented at the next meeting.
- 1.24 The Subcommittee noted that PHARMAC had received a request that HBvaxPRO 40 mcg be funded for vaccination of patients with HIV who had not seroconverted. The Subcommittee recommended that this request be included in the HIV paper to be prepared for consideration at the next meeting.

In relation to Poliomyelitis vaccine

- 1.25 The Subcommittee **recommended** the Special Authority criteria relating to inactivated poliomyelitis vaccine be amended as follows (addition in bold):

Up to three doses for patients meeting either of the following:

1. For **partially vaccinated or** previously unvaccinated individuals; or
2. For revaccination following immunosuppression.

In relation to Human papilloma virus vaccine

- 1.26 The Subcommittee noted that the recommendation from the Ministry of Health had resulted in the eligible age for females to be vaccinated being lowered from 19 (i.e. up to the 20^h birthday) to become 17 years (up to the 18th birthday). The Subcommittee recommended the age be increased to revert to 19 years, as it considered that there were some young women whose parents would not have given permission for vaccination at the school based programmes; raising the age to 19 would enable young women a longer time period to be vaccinated through their own personal interactions with their health professionals.

- 1.27 The Subcommittee **recommended** the Special Authority criteria for human papilloma virus vaccine be amended as follows (deletions in strike through, additions in bold):

Maximum of three doses for patient meeting any of the following criteria:

1. ~~Women~~ **Females** aged under ~~48~~ **20** years old; or
2. Patients aged under ~~25~~ **26** years old with confirmed HIV infection; or
3. For use in transplant patients.

In relation to Adult diphtheria and tetanus vaccine

- 1.28 The Subcommittee **recommended** amending the restriction applying to adult diphtheria and tetanus vaccine, with a high priority, as follows (deletions in strike through, additions in bold):

Any of the following:

1. For vaccination of patients aged 45 and 65 years old; or
2. For vaccination of previously unimmunised **or partially immunised** patients; or
3. For revaccination following immunosuppression; or
4. For ~~revaccination~~ **boosting of** ~~for~~ patients with tetanus-prone wounds; or
5. For use in testing for primary immunodeficiency diseases, on the recommendation of an internal medicine physician or paediatrician.

In relation to Measles Mumps and Rubella

- 1.29 The Subcommittee recommended amending the restriction applying to measles, mumps and rubella vaccine with a high priority as follows (deletions in strikethrough, additions in bold):

A maximum of two doses (**or three doses if the first dose had been received under 1 year of age**) for any patient meeting the following criteria:

- 1 For primary vaccination in children; or
- 2 For revaccination following immunosuppression; or
- 3 For any individual susceptible to measles, mumps or rubella

Note: Please refer to the Immunisation Handbook for appropriate schedule for catch up programmes

2 Pertussis vaccination during pregnancy

Application

- 2.1 The Subcommittee considered an application from PHARMAC to extend the vaccination of pregnant women with the tetanus, diphtheria and acellular pertussis (Tdap) vaccine between gestational weeks 28 and 38 beyond epidemics.

Recommendation

- 2.2 The Subcommittee **recommended** that pertussis vaccination of pregnant women between gestational weeks 28 and 38 should be extended beyond epidemics with a **high priority**.

The Decision Criteria particularly relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; and (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule.*

Discussion

- 2.3 The Subcommittee noted that PHARMAC had received an application from staff of one DHB requesting widening access to pertussis vaccination to targeted groups. The Subcommittee noted that, as a result of consultation, PHARMAC had received a number of requests regarding the funding of pertussis vaccine including ongoing funding for pregnant women regardless of circulating pertussis level; or, if the former were not possible, access to the vaccine at a regional level (Northern, Midland etc) rather than by DHB if an outbreak was identified, and widening of access to pregnant women who are contacts of probable or confirmed pertussis cases.
- 2.4 The Subcommittee noted that PHARMAC had received a submission from the supplier providing evidence on the safety and efficacy of maternal vaccination, and that PHARMAC had requested information from the Ministry of Health's Public Health Clinical Leadership group on the effectiveness of preventing infant pertussis by vaccinating pregnant women.
- 2.5 The Subcommittee noted that defining an official outbreak is difficult in the New Zealand setting, and considered it would be sensible to continue to fund pertussis vaccination of pregnant women beyond the period when the outbreak may have been declared until further information is available and local data is available to assess the effectiveness of the programme. The Subcommittee considered that it was too early to determine the effectiveness of maternal vaccination on pertussis in infants and that evidence would develop over time.
- 2.6 The Subcommittee noted a summary of the UK data from the minutes of the CDC meeting held in June 2012 assessing the efficacy of vaccination at various gestation times according to the interval between vaccination and the onset of disease. The Subcommittee noted that the UK data showed that vaccine efficacy in preventing pertussis in infants when given 28 days before birth is 90%; 75% when given between 7 to 27 days before birth and 29% when given 0 to 6 days before or 1 to 13 days after birth.

- 2.7 The Subcommittee noted a study by Halperin et al (Clin Infect Dis. 2011;53(9):885-92.) concluded that although the antibody response to a dose of Tdap in healthy non-pregnant women of childbearing age and postpartum women occurs by day 14 and is suggestive of an anamnestic immune response, it may not be sufficiently rapid to protect infants in the first weeks of life.
- 2.8 The Subcommittee noted the reference papers and information supplied by the requesting DHB and the Supplier in relation to the impact of parental Tdap immunisation on infant pertussis hospitalisations, the safety in pregnant and breast feeding women, and effectiveness and cost-effectiveness of vaccinating during pregnancy. The Subcommittee noted that the supplier, GSK, is undertaking a retrospective analysis of all births between 2009 and 2013 to determine the incidence of hospital-related outcomes of those mothers vaccinated with Tdap compared with those not vaccinated during pregnancy and birth.
- 2.9 The Subcommittee considered local surveillance data on pertussis infection incidence are important, as consideration needs to be given to the possibility that vaccinating pregnant women may reduce infants' responses to the pertussis vaccination at 6 weeks, which is an earlier time than the first vaccination given in most other countries.
- 2.10 The Subcommittee noted that the current vaccination rate in this target group is ~16% of those eligible, and questioned why it was not monitored as part of the vaccination targets, given the primary beneficiaries of this vaccination are infants. The Subcommittee was advised that this vaccination does not come under the auspices of the target monitoring as it is in response to an outbreak as opposed to an Immunisation Schedule listing.
- 2.11 The Subcommittee considered it should be a high priority for the Ministry of Health's Immunisation team to promote vaccination in this group in order to significantly improve the uptake rate, to include this vaccination in the National Immunisation Register (NIR), and that once the vaccine is no longer subject to an outbreak response but part of the normal schedule, it be included in the Ministry of Health's Immunisation targets.
- 2.12 The Subcommittee recommended, with a high priority, that the reference to outbreaks should be removed from the access criteria in the Pharmaceutical Schedule for the Tdap vaccine.
- 2.13 The Subcommittee recommended that PHARMAC raise this issue again with the Subcommittee in 12 to 18 months, when there may be more local data to inform discussion as to the appropriate funded indications for this product.

3 Meningococcal C conjugate vaccination

Application

- 3.1 The Subcommittee considered a paper prepared by PHARMAC staff on widening access to meningococcal C vaccination eligibility, following the Committee's request for such a paper at its meeting of April 2013.

Recommendation

- 3.2 The Subcommittee **deferred** making a recommendation on widening access to meningococcal C vaccinations, instead recommending that PHARMAC staff assess the effects of funding a meningococcal C vaccination programme for people in close living situations such as prisons, barracks, university halls of residence, and those boarding at boarding schools, as well as for universal vaccination of infants and adolescents or teenagers, particularly instituted with a catch-up programme.
- 3.3 The Subcommittee **recommended** that access to meningococcal C vaccine be amended to include vaccination of individuals with complement deficiency (acquired or inherited) with a high priority.

Discussion

- 3.4 The Subcommittee noted that meningococcal C vaccinations had previously been discussed by the Subcommittee, and that Neisvac-C and Menactra will be listed from July 2014 for patients considered to be high-risk. Members noted that this paper discussed widening access to these vaccines to wider patient groups including universal vaccination. Some members expressed an interest in the combined HiB/Men C vaccination in order to reduce injection burden (i.e numbers of injections that would be given to a child) should universal vaccination against meningococcal C be introduced, but noted that this vaccine is not currently registered in New Zealand.
- 3.5 The Subcommittee noted New Zealand has a bimodal distribution of meningococcal disease incidence by age, with the highest age-specific disease incidence being in the very young (19.8 per 100,000 population aged less than one year and 5.6 per 100,000 in children aged 1 to 4 years) with a second peak of 4.8 per 100,000 population in the 15-19 year age group. The Subcommittee noted that of the 74 confirmed cases in 2012, 60% were serotyped as group B and 33% as group C.
- 3.6 The Subcommittee noted that mortality and morbidity associated with meningococcal C is higher than that associated with meningococcal B. The Subcommittee considered that current incidence of invasive meningococcal C disease in New Zealand are not as high as the rates other countries were experiencing prior to them implementing universal meningococcal C vaccination programmes.

- 3.7 The Subcommittee considered that meningococcal C conjugate vaccines would likely provide direct protection for around five years, possibly up to six to nine years, noting a study (Trotter & Maiden. Expert Rev Vaccines. 2009;8(7):851-61) where after ten years only 15% of vaccinated people maintained protection. Members noted that different kinds of conjugate vaccine would offer different durations of protection.
- 3.8 The Subcommittee considered that, for infants, the uptake rate of the vaccine would be as high as it is for other childhood vaccines, around 95%, if scheduled at the same time as other vaccines. Members considered that only around two-thirds coverage would be needed to provide herd immunity, which was considered to be a major component in any programme but was achieved via the use of a mass catch up programme for all children/adolescents at the start of instituting a universal programme. Members noted that the majority of benefit from mass vaccination resulted from reduced nasal carriage particularly in adolescents.
- 3.9 Members discussed when meningococcal C vaccines could be administered. Members noted that there is an existing scheduled immunisation at age 15 months, which could be suitable for the first dose of meningococcal C vaccine. Some members noted that, should the combined HiB/Men C vaccine become available, it could be given at age 12 months instead of 15 months. If universal varicella vaccine was also introduced this, could require an extra visit in the National Immunisation Schedule in the second year to avoid receiving too many injections at one visit. Members considered that one or two doses in adolescents could be appropriate, mentioning possible doses at age 11 years, the first year of high school (around 13 years), and 15 years.
- 3.10 The Subcommittee considered whether a catch-up programme would be needed, and noted that other countries such as the UK used catch up programmes when implementing their universal vaccination programmes to achieve herd immunity. The cost would depend on how a programme was implemented. Members discussed several options for a catch-up programme, including which ages would be eligible and whether it would be done through schools, as well as programmes used by the UK and Australia.
- 3.11 The Subcommittee noted the surveillance report prepared by ESR on the epidemiology of meningococcal disease in New Zealand, 2012, shows a higher incidence amongst Māori and Pacific peoples. Members noted there was no specific data of incidence of meningococcal C in patients with complement deficiency in New Zealand.
- 3.12 The Subcommittee noted a supplier's response to the vaccination RFP requesting consideration of funding quadravalent meningococcal C vaccination for patients with complement deficiency. Members noted that deficiencies in complement system protein may present with

recurrent and severe bacterial infections, autoimmunity, or specific disorders resulting from inadequate regulation of complement activation. Members noted that deficiency may be acquired or inherited and that the incidence and type of complement deficiency varies from country to country.

- 3.13 The Subcommittee noted that complement deficiency was not routinely screened for in New Zealand and that patient numbers were likely to be low. Members considered that patients would require frequent revaccination (every 5 years) to ensure protection.
- 3.14 The Subcommittee **recommended** that access to quadravalent meningococcal C vaccine be amended to include vaccination of individuals with complement deficiency (acquired or inherited) with high priority.
- 3.15 The Subcommittee considered that it needed more information before it could make a recommendation on widening access to meningococcal C vaccines to a universal vaccination programme. It recommended that PHARMAC examine meningococcal C vaccination programmes in other countries to help identify options, and then assess their potential cost-effectiveness to help identify optimal programmes; any analysis would ideally include widening access to various groups with various kinds of catch-up programmes, and vaccinating specific target groups such as people in prisons, barracks, student hostels, secondary boarding schools etc.

4 Consideration of requests resulting from the vaccine consultations

Application

- 4.1 The Subcommittee considered a summary paper on the responses received during consultation on the agreements formed in relation to supply of vaccines from 1 July 2014. The Subcommittee noted that the purpose of the paper was not for a full discussion on each response at this stage but was to determine whether or not the Subcommittee wanted to review the requests at future meetings.

Recommendation

- 4.2 The Subcommittee **recommended** the following topics required further discussion at the next meeting of the Subcommittee:

Varicella vaccine – extending the household criteria to include adult patients who are immunocompromised, and extending vaccination to patients with chronic kidney disease who may be candidates for transplant.

Pneumococcal conjugate 13 vaccine (PCV13) – extending the criteria for high risk patients (eg pre- or post- splenectomy) to allow vaccination of all

patients regardless of age. The current criteria limit funded vaccination to patients up to the age of 18 years.

Hepatitis A vaccine – extending the criteria to allow vaccination of all adults with chronic liver disease (not just children), and extending the criteria to allow for an additional two doses for HIV patients and patients with chronic hepatitis B.

Discussion

- 4.3 Adult diphtheria, tetanus and acellular pertussis (Tdap). One respondent had requested that Tdap replace Td vaccination at ages 45 to 65 and be used when patients require a tetanus booster. The Subcommittee considered that this would not have a significant impact on pertussis carriage as the vaccination would be too infrequent. Members noted that a cocooning strategy may be more appropriate. The Subcommittee considered that this request did not require further consideration and did not consider a change necessary.
- 4.4 Adult diphtheria and tetanus vaccine (Td). One respondent suggested the wording for the restriction relating to vaccination for patients with tetanus-prone wounds be changed to include the wording “where the last tetanus vaccination was 5 or more years ago”. The Subcommittee considered that this caveat is already stated by the Immunisation Handbook, and that it is the role of the Handbook to advise best medical practice, not the Pharmaceutical Schedule. The Subcommittee considered that the wording in the Pharmaceutical Schedule should not be changed.
- 4.5 Human Papillomavirus Vaccine (HPV). A number of responders requested the age restriction revert to under 20 years (ie ages 0-19). The Subcommittee recommended this change be made (as per its earlier discussion in Section 3).
- 4.6 Varicella vaccine. Responders requested extending the household criteria to include adult patients who are immunocompromised and extending vaccination to patients with chronic kidney disease who may be candidates for renal transplantation. The Subcommittee considered that both these requests required further discussion and requested PHARMAC bring further information to the next Subcommittee meeting.
- 4.7 Pneumococcal conjugate 13 vaccine (PCV13). A number of respondents considered that high risk patients (eg pre- or post-splenectomy patients) should be vaccinated at any age (current age limit of 18 years). The Subcommittee considered this request required further discussion and requested PHARMAC bring further information to the next subcommittee meeting.
- 4.8 Hepatitis A vaccine. Respondents requested that the criteria be extended to allow vaccination of all adults with chronic liver disease (not just children) and one respondent requested extending the restrictions to allow for an additional two doses for HIV patients and patients with chronic hepatitis B. The Subcommittee considered the request for vaccination of HIV patients should be included in the HIV paper that has been requested to go to the next meeting. The Subcommittee considered the request for vaccination of patients with chronic hepatitis B

required further discussion and requested PHARMAC bring further information to the next subcommittee meeting.

- 4.9 Measles, mumps, rubella (MMR). The Subcommittee noted that PHARMAC had received a submission from a supplier asking for a review of the strain of mumps included in the MMR. The Subcommittee noted that the supplier considered the Jeryl Lynn strain is not as effective as the L-Zagreb strain. The Subcommittee noted that there were some safety concerns around the L-Zagreb strain and it would consider a submission once a registered vaccine was available in New Zealand.
- 4.10 Whole cell pertussis vaccine for long term protection. The Subcommittee noted that PHARMAC had received a submission from a supplier asking for consideration of the inclusion of a whole cell pertussis component in the DTP vaccine at 11 years. The Subcommittee noted that the supplier considers whole cell pertussis offers superior long-term efficacy compared with acellular pertussis. The Subcommittee acknowledged that there is an issue with the efficacy of pertussis vaccines and considered that a whole cell vaccine could be a useful addition to the Pharmaceutical Schedule. The Subcommittee will review pertussis vaccination at a future meeting and would review an application from the supplier if a registered vaccine is available.