# Vaccination Record for Starship CKD 4-5, Dialysis & Transplant Patients

<table>
<thead>
<tr>
<th>Vaccines</th>
<th>Regular NZ Schedule</th>
<th>Accel &amp; Modified SOT Schedule ((^n) unasfunded as per community schedule – but avail on HML)</th>
<th>Dates (and ages) received</th>
<th>Serological Response (check 1 month post last vaccine)</th>
<th>Response to First Series?</th>
<th>Second Series/Additional Doses Given?</th>
<th>Response to Second Series/Additional Doses?</th>
<th>Eligible for Future Vaccines or Non-Responder?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INFANRIX-hexa</strong> (DTaP-IPV-HepB/Hib)</td>
<td>6w, 3m, 5m</td>
<td>Extra dose advised at 13m in infants (Do not give 15m Act-HIB if this extra dose is given)</td>
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<td></td>
<td>0.5ml IM</td>
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<tr>
<td><strong>HBvaxPRO</strong> (Hep B)</td>
<td>n/a</td>
<td>See notes re recommended indications and dosing</td>
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<tr>
<td><strong>HIBERIX</strong> (Hib)</td>
<td>15m</td>
<td>Do not give if had the extra Infanrix-hexa at 13m</td>
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| **PREVENAR 13** (Conjugate PCV13) | 6w, 3m, 5m, 15m | Use PCV13 to start/complete initial series. Can give 15m vaccine early at 12m.  
  • Give 1x dose PCV13 if had 4 x PCV10.  
  • Give 2 doses at least 8 weeks apart if prev un-immunised 2-5 yrs age.  
  • If > 5 yrs eligible for 1 dose under high risk criteria. |                           |                                                        |                           |                                          |                                             |                                               |
|                           | (Synflorix, PCV10 on routine schedule) |                                                                                                 |                           |                                                        |                           |                                          |                                             |                                               |
|                           | 0.5ml IM            |                                                                                                 |                           |                                                        |                           |                                          |                                             |                                               |
| **PNEUMOVAX** (Polysaccharide pneumococcal 23PPV) | n/a | Eligible under high risk criteria. Give from 2 years of age.  
  • 1st dose minimum of 8/52 after PCV13.  
  • 2nd dose of 23PPV should be given 3-5 years after 1st. |                           |                                                        |                           |                                          |                                             |                                               |
|                           | 0.5ml IM/SC         |                                                                                                 |                           |                                                        |                           |                                          |                                             |                                               |
| **VARILRIX** (VZV)       | 15m                 | Recommended to start from 12 m. Not w/i 1 month of tpx, delay post blood products, do not give if immunosuppressed.  
  • 2 doses 6 weeks apart. |                           |                                                        |                           |                                          |                                             |                                               |
|                           | 0.5ml SC            |                                                                                                 |                           |                                                        |                           |                                          |                                             |                                               |

*JULY 2017 (to be reviewed 07/20)*
<table>
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<tr>
<th>Vaccine</th>
<th>Dosage</th>
<th>Age Limits</th>
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| PRIORIX (MMR)           | 0.5ml | 15m, 4y 7m, 12m and 13 m (3 doses reqd if given 1st at <12m)  
Otherwise can give 2nd dose 3/12 after 1st.  
Not w/i 1 month of tpx, delay post blood products, do not give if currently immunosuppressed. |
| HAVRIX JUNIOR (Hepatitis A) | n/a   | Funded for pre and post tpx pts.  
From > 7 months age (>12 months preferred).  
• 2 doses 6 months apart. |
| NEISVAC-C (Meningococcal group C conjugate, MenCCV) | n/a   | Give in immunosuppressed infants or those with likelihood tpx < 2 years age.  
2 doses funded for immunosuppressed.  
• 6 – 11 months: 1 dose with booster at 12 months.  
• 12-23 months: 1 dose  
Follow-up with menactra vaccine after 2 years of age. |
| MENACTRA (Quadrivalent meningococcal conjugate, MCV4-D) | n/a   | Can start from 13 months as long as at least 4 weeks after the 4 doses PCV13 completed.  
If received MenCCV give first dose from 2 years.  
• 2 doses 8 weeks apart with repeat dose q 3-5 yearly. |
| INFANRIX-IPV (DTaP-IPV) | 0.5ml | 4y |
| BOOSTRIX (Tdap)         | 0.5ml | 11y |
| GARDASIL (HPV)          | 0.5ml | 12y (2 doses over 6m) Give from 9yrs age  
• Recommend 3 doses at 0,2,6 months. |
| Seasonal Influenza      | Annually | From age 6/12.  
2 doses 4 wks apart if is first time receiving influenza vaccine. |

**JULY 2017 (to be reviewed 07/20)**
ADDITIONAL NOTES  (For further information on immunisations please refer to the current Immunisation Schedule in the Immunisation Handbook 2017 or www.immune.org.nz)

**Hepatitis B**
1. Non-responder or falling immunity (<10 U/L) after first series (ie 3 doses): Recommend second series 3 doses q2 months apart (minimum q 1 month apart).
2. Falling immunity on annual testing (<10 U/L) post second series (when previously documented response): 1 x “booster” vaccine only.
3. Provide no more than two complete (3 dose) vaccine series. A single “booster” dose may be provided annually as long as patient continues to mount a response. To maximise response can administer intradermally.
   Dosing for pre-dialysis patients: HBvaxPro IM: <16 yrs = 5ug, 16+ yrs 10ug
5. A non-responder who is exposed to blood or body fluids should be given 2 doses of HBlg, 1 month apart.

**Pneumococcal (PCV13, 23 PPV)**
1. Children on dialysis/ pre or post transplant/ “severe immunosuppression” are eligible irrespective of age under high risk criteria.
2. If a child has already received four doses of PCV10, they should receive one dose of PCV13.
3. Previously unimmunised children:
   a. Age < 6months: 3x q 4 weekly; age 7-11months: 2x q 4 weekly; age 12-23m: 2x q 8 weeks; aged 2-5yrs, require one dose.
4. Give 23PPV at least eight weeks after the last dose of PCV13. Revaccinate with 23PPV 3-5 years later.
5. Do not give PCV13 within 2 weeks of kidney transplant.
6. If 23PPV given prior to any doses of PCV13, wait at least 1 year before administering PCV13.

**Hepatitis A (Havrix Junior or combined HepA/HepB vaccine Twinrix)**
1. Funded for transplant patients (can be given pre or post).
2. Havrix Junior can be administered from 7 months of age at the earliest, preferred to delay until 12months.
3. 2 doses 6 months apart recommended for Havrix Junior. Refer to Imm handbook for Twinrix details.
4. Booster doses generally not required/recommended if had the initial 2 dose series.

**VZV (Varilrix) Live**
1. Funded for pre-tpx pts (not w/i 1 month of tpx) and household contacts of both current/future transplant recipients or immunosuppressed patients.
2. If reliable history of no prior varicella infection, pre-vaccine serology not required.
3. Recommend lymphocyte count >1.2 x 10^9/L pre vaccine.
4. Delay vaccine for after any blood products including immunoglobulin given, for recommended time interval refer to Table 1.3 in immunization handbook.
5. Varilrix: 2 doses 6 weeks apart from 9 months of age (initial 2 doses recommended for this population irrespective of serology).
6. Document serology in patient as baseline post the standard 2 vaccine course. If negative not for further vaccinations. If previously have responded but subsequently lost immunity not for further vaccination.
7. Transplantation should NOT be within four weeks of receiving live vaccinations.
8. Nb. MMR and VZV can be given at same time, but otherwise must be minimum 4 weeks apart.
9. Pre-transplant dialysis/immune compromised patients who are VZV IgG negative who are exposed to Varicella should be given VZIg, as per the national immunisation guidelines section 21.8.2 and ring fence protection recommended. Post transplant patients should receive IVIG if VZV IgG negative AND irrespective of their serological results during the first 12 months post transplant.
Conjugate Meningococcal C vaccine (Neisvac-C)
1. Give in immunosuppressed infants or those with likelihood of transplant at < 2 years age (ie. pre menactra).
2. 2 doses funded for immunosuppressed patients.
3. Dosing schedule depends on age at first vaccine:
   a. 8 weeks – 6 months: 2 doses 8 weeks apart with booster at 12 months (3rd dose would require HML funding)
   b. 6 – 11 months: 1 dose with booster at 12 months.
   c. 12-23 months: 1 dose
4. Follow-up with the menactra vaccine after 2 years of age if continued immunosuppression.

Conjugate Meningococcal A,C, Y, W135 (Menactra)
1. Recommended and funded for use in transplant patients (pre or post) or following immunosuppression.
2. CAN ONLY BE GIVEN AT LEAST 4 WEEKS AFTER PCV13 4 DOSE COURSE IS COMPLETED.
3. Can be given from 9 months, 2 doses 2 months apart with a booster after 3 years (if first dose given < 7 years age) then 5 yearly. If 7+ years at time of first dose give boosters q 5 yearly if continued immunosuppression.

MMR Live
1. Document serology in patient as baseline post the standard 2 vaccine course (but not within 3 mo of receiving blood products). If find inadequate level of protection for 1 or more components (after initial 2 vaccine course) recommend the following:
   a. If not for transplant or for patients on deceased donor transplant list, nil further action.
   b. If for scheduled living renal transplant may administer one further vaccination 2-6 months pre transplant date (absolute minimum 4 weeks before) and repeat serology for documentation 1 month post. If still no response, document as non-responder, no further vaccines to be given.
2. Transplantation should NOT be within four weeks of receiving live vaccinations.
3. Nb. MMR and VZV can be given at same time, but otherwise must be minimum 4 weeks apart.
4. If given accelerated MMR (first dose when < 12m) need second dose at 12m and third dose one month later.
5. Delay vaccine for after any blood products including immunoglobulin given, for recommended time interval refer to Table 1.3 in immunization handbook.
6. Pre-transplant patients who are Measles IgG negative who are exposed to Measles should be given IV immunoglobulin, as per the national immunisation guidelines section 11.8.2 and ring fence protection recommended. Post transplant patients should receive IVIG if Measles IgG negative AND irrespective of their serological results during the first 12 months post transplant.

HPV (Gardasil)
1. Males and females (can be given pre or post transplant) patients from 9 yrs. Optimal age of administration 11-13 years.
2. Recommend giving pre transplant from age 9 years in preference to delaying till post transplant.

Influenza
1. Funded for > 6 month olds with chronic renal failure or immunosuppressed till end July each year.
2. Currently recommended but not funded for household contacts of immunosuppressed patients.
3. If < 9 yrs age and not previously had influenza vaccine, need 2 doses at least 4 weeks apart.