

**Table 3.3.2: Recommendations for vaccinations for solid organ transplant (SOT) recipients<sup>122,124</sup>**

Vaccine	Vaccines recommended before transplantation		Vaccines recommended after transplantation, if not given beforehand		Comment
	Child (0–18 years)	Adult (≥19 years)	Child (0–18 years)	Adult (≥19 years)	
<b><i>Streptococcus pneumoniae</i> (pneumococcal disease)</b>					
13-valent pneumococcal conjugate vaccine (13vPCV)	Yes (aged ≥6 weeks)	Yes	Yes (aged ≥6 weeks)	Yes	Recommendations depend on age. Refer to 4.13 <i>Pneumococcal disease</i> and Table 2.1.11 <i>Catch-up schedule for 13vPCV (Prevenar 13) and 23vPPV (Pneumovax 23) in children with a medical condition(s) associated with an increased risk of IPD, presenting at age &lt;2 years.</i>
23-valent pneumococcal polysaccharide vaccine (23vPPV)	Yes (≥8 weeks after 13vPCV)	Yes (≥8 weeks after 13vPCV)	Yes (≥8 weeks after 13vPCV)	Yes (≥8 weeks after 13vPCV)	Recommendations depend on age. Refer to 4.13 <i>Pneumococcal disease</i> and Table 2.1.11 <i>Catch-up schedule for 13vPCV (Prevenar 13) and 23vPPV (Pneumovax 23) in children with a medical condition(s) associated with an increased risk of IPD, presenting at age &lt;2 years.</i>
<b><i>Haemophilus influenzae</i> type b</b>					
Hib vaccine	Yes	Not indicated	Yes	Not indicated	If possible, complete vaccination before transplantation.
<b>Diphtheria, tetanus, pertussis</b>					
DTPa-containing vaccine for children <10 years of age dTpa for those ≥10 years of age	Yes	Yes, provided dTpa has not been given in the last 10 years	Yes, if not previously vaccinated	Yes, provided dTpa has not been given in the last 10 years	The primary schedule should be completed before transplantation. For recipients <10 years of age, not previously vaccinated, give all 3 doses as DTPa-containing vaccine. For recipients ≥10 years of age, not previously vaccinated, give the 1st dose as dTpa, followed by 2 doses of dT. If dT is unavailable, complete vaccination course with dTpa. Refer also to catch-up tables for children and adults in 2.1.5 <i>Catch-up</i> .
<b>Influenza</b>					
Influenza vaccine	Annual vaccination starting before transplantation for those ≥6 months of age. Two doses of influenza vaccine at least 4 weeks apart are recommended for all SOT recipients receiving influenza vaccine for the first time post transplant (irrespective of age). Influenza vaccine should be given annually thereafter.				
<b>Poliomyelitis</b>					
IPV	Yes	Yes (refer to comments)	Yes	Yes (refer to comments)	Adults who have received a routine course of polio vaccination in childhood are recommended to receive a booster every 10 years if they plan to travel to a polio endemic area or have an occupational risk of polio exposure (e.g. laboratory workers).

**Table 3.3.2 (continued)**

Vaccine	Vaccines recommended before transplantation		Vaccines recommended after transplantation, if not given beforehand		Comment
	Child (0–18 years)	Adult (≥19 years)	Child (0–18 years)	Adult (≥19 years)	
<b>Hepatitis B</b>					
Hepatitis B vaccine	Yes	Yes, depending on serological status	Yes	Yes, depending on serological status	Recommended for all seronegative SOT candidates. Immunogenicity is likely to be improved when vaccination is administered before transplantation. Accelerated schedules can be used (refer to Table 4.5.2 <i>Accelerated hepatitis B vaccination schedules (for persons with imminent risk of exposure)</i> ).
<b>Hepatitis A</b>					
Hepatitis A vaccine*	Yes, if seronegative (refer to comments)	Yes, if seronegative (refer to comments)	Yes, if seronegative (refer to comments)	Yes, if seronegative (refer to comments)	Recommended for all liver SOT recipients, or transplant candidates or recipients with chronic liver disease, or those chronically infected with either hepatitis B or hepatitis C.
<b><i>Neisseria meningitidis</i> (meningococcal disease)</b>					
Meningococcal C conjugate vaccine (MenCCV or Hib-MenCCV)	Yes	Not indicated	Yes	Not indicated	A single dose of meningococcal C conjugate vaccine is recommended at 12 months of age. 4vMenCV is recommended for persons with certain medical conditions or treatments that increase their risk of IMD (refer below).
Quadrivalent meningococcal conjugate vaccine (4vMenCV)*	Yes, if ≥2 months of age with defined risk factors (refer to comments)	Yes, if defined risk factors (refer to comments)	Yes, if ≥2 months of age with defined risk factors (refer to comments)	Yes, if defined risk factors (refer to comments)	4vMenCV is recommended for persons with certain medical conditions or treatments that increase their risk of IMD (refer to 4.10 <i>Meningococcal disease</i> , List 4.10.1). The vaccine brand and doses required depend on the age at which the vaccine course is commenced (refer to 4.10 <i>Meningococcal disease</i> , Table 4.10.2).
Meningococcal B vaccine (MenBV)	Yes, if at risk due to age or other defined risk factors (refer to comments)	Yes, if defined risk factors (refer to comments)	Yes, if at risk due to age or other defined risk factors (refer to comments)	Yes, if defined risk factors (refer to comments)	MenBV is recommended for certain age groups and individuals with specific risk factors placing them at increased risk of IMD (refer to 4.10 <i>Meningococcal disease</i> ). The number of doses varies with age as outlined in Table 4.10.1 in 4.10 <i>Meningococcal disease</i> .

**Table 3.3.2 (continued)**

Vaccine	Vaccines recommended before transplantation		Vaccines recommended after transplantation, if not given beforehand		Comment
	Child (0–18 years)	Adult (≥19 years)	Child (0–18 years)	Adult (≥19 years)	
<b>Human papillomavirus</b>					
HPV vaccine	Yes	Yes	Yes, if no history of prior immunisation	Yes, if no history of prior immunisation	3-dose schedule of 4vHPV is recommended for those aged >9 years. The routine schedule is 1st dose on day 0 (day of vaccination), 2 months, and 6 months (after 1st dose). Recommended in both females and males. For more detail, refer to 4.6 <i>Human papillomavirus</i> .
<b>Measles, mumps and rubella</b>					
MMR vaccine	Yes	Yes, unless 2 previous documented doses	Contraindicated	Contraindicated	The primary schedule should be completed before transplantation provided the transplant candidate is taking no immunosuppressive therapy and has no underlying cellular immunodeficiency.
<b>Varicella</b>					
Varicella vaccine	Yes, if non-immune (refer to comments)	Yes, if non-immune (refer to comments)	Contraindicated	Contraindicated	Confirm immunity with reliable history of varicella disease and confident clinical diagnosis or serological testing. The primary vaccination schedule should be completed before transplantation, provided the transplant candidate is taking no immunosuppressive therapy and has no underlying cellular immunodeficiency.

\* Any transplant recipient who anticipates travelling may require additional vaccination, such as for hepatitis A and meningococcal disease (refer also to 3.2 *Vaccination for international travel*).