

# Vaccination Guidelines for Pre & Post Heart & Lung Transplant

The following guidelines are provided as a guide only and any vaccination prescription should be performed at the discretion of the treating physician with an appropriate medical review, taking into consideration contraindications such as allergies, and potential side effects.

## Pre Heart & Lung Transplant Vaccinations

Hepatitis B		
<p>Confirm serological status. If patient is not immune they will need to commence accelerated vaccination schedule. This can be arranged through the GP or via Heart Lung clinic.</p> <p>Cost: around \$20 per dose</p> <p>Serology needs to be confirmed as per below schedule.</p>		
<p><b>Notes:</b> If listing is imminent, the first dose can be administered in HLC or on the ward. Must be completed post-transplant.</p> <p><b>Route:</b> Intramuscular injection into deltoid muscle.</p>		
Engerix-B® (adult formulation)	Accelerated	Routine
<b>1<sup>st</sup> dose:</b>	Day 0 (day of vaccination)	day 0 (day of vaccination)
<b>2<sup>nd</sup> dose:</b>	7 days after 1 <sup>st</sup> dose	1 month after 1 <sup>st</sup> dose
<b>3<sup>rd</sup> dose:</b>	21 days after 1 <sup>st</sup> dose	2 months after 1 <sup>st</sup> dose
<p><b>** Check serology status 4 weeks after 3rd dose of Engerix-B®</b></p> <p><i>If patient has not seroconverted (anti-HBs level of &lt;10 mIU per mL) after 3 doses, patient will require a single booster shot. Recheck serology status 4 weeks after booster.</i></p> <p><i>Patients who still have an anti-HBs level &lt;10 mIU per mL require 2 further doses 1 month apart (the original booster shot is counted in the first of three boosters in total)</i></p> <p><i>If anti-HBs level remains &lt;10 mIU per mL post the additional 2 booster shots, then they will need to be referred to immunology outpatient clinic for consideration of intradermal Hepatitis B</i></p>		
<b>4<sup>th</sup> dose (Booster shot):</b>	12 months after 1 <sup>st</sup> dose	12 months after 1 <sup>st</sup> dose

<b>Varicella Zoster</b>	
<p>Confirm serological status. If previous exposure is demonstrated on serology they will need vaccination. This can be arranged with GP or via Heart Lung clinic.</p> <p>Cost: Patient cost approx. \$207 at GP or no cost to patient if vaccinated in clinic/as inpatient.</p>	
<p><b>Notes:</b> this is a live vaccine and <b>must be given minimum of 4 weeks before active listing and must not be administered post-transplant.</b></p>	
<p><b>Preparation:</b> Zostavax®</p>	
<p><b>Route:</b> Subcutaneous injection in deltoid region.</p>	
<p><b>Single Dose Only</b></p>	

<b>Human Papilloma Virus- 9vHPV</b>	
<p>For prevention of human papilloma virus in men and women of any age if not already vaccinated. Can be organised through the GP.</p>	
<p><b>Notes:</b> Nil</p>	
<p><b>Preparation:</b> Gardasil ®</p>	
<p><b>Route:</b> Intramuscular injection.</p>	
<b>1<sup>st</sup> dose:</b>	day 0 (day of vaccination)
<b>2<sup>nd</sup> dose:</b>	2 months
<b>3<sup>rd</sup> dose:</b>	6 months

<b>Influenza</b>	
<p>For prevention of some Influenza strains, if not already vaccinated. Should be administered seasonally. Can be organised through the GP or local pharmacy.</p>	
<p><b>Notes:</b> Nil</p>	
<p><b>Preparation:</b> Varies each year.</p>	
<p><b>Route:</b> Intramuscular injection or deep subcutaneous – will be preparation dependent.</p>	

<b>Pneumococcus</b>	
Confirm with GP if patient is uncertain they have received their vaccination. Two preparations are used at least 8 weeks apart.	
<b>Notes:</b> Nil	
<b>Route:</b> Intramuscular injection in deltoid muscle	
<b>Preparation:</b> Prevenar 13®	
<b>1<sup>st</sup> dose:</b>	Day 0 (day of vaccination)
<b>Preparation:</b> Pneumovax 23®	
<b>2<sup>nd</sup> dose:</b>	>8 weeks post Prevenar 13

<b>COVID-19</b>	
Confirm patients have received 2 doses, ideally completed at least 2 weeks before transplant. Can be organised through GP, local pharmacy or vaccination centre.	
<b>Notes:</b> Guidance on vaccine schedules and booster doses may continue to change. Check current ATAGI guidance for the most up-to-date information	
<b>Preparations:</b> Comirnaty (Pfizer) Spikevax (Moderna) Vaxzevria (AstraZeneca)	
<b>Route:</b> Intramuscular injection into deltoid muscle	
<b>Dose:</b> Dependant on preparation – check current guidance	

## Post Heart & Lung Transplant Vaccinations

Influenza	
For prevention of some Influenza strains, if not already vaccinated. Should be administered seasonally. Can be organised through the GP or local pharmacy.	
<b>Notes: Lung and Heart recipient post transplant administration schedule varies</b>	
<b>Preparation:</b> Varies each year.	
<b>Route:</b> Intramuscular injection or deep subcutaneous – will be preparation dependent.	
HEART Transplant schedule	
<b>Hearts First Year Post Tx 1<sup>st</sup> dose:</b>	Day 0 (day of vaccination)
<b>Hearts First Year Post Tx 2<sup>nd</sup> dose (Booster):</b>	Day 28
<b>Second year and thereafter:</b>	1 x dose Annually
LUNG Transplant schedule	
<b>Lungs EVERY Year Post Tx 1<sup>st</sup> dose:</b>	Day 0 (day of vaccination)
<b>Lungs EVERY Year Post Tx 2<sup>nd</sup> dose (Booster):</b>	Day 28
<b>Two doses of influenza vaccine at least 4 weeks apart are recommended annually for lung transplant recipients</b>	

Pneumococcus	
<b>For ongoing protection against pneumococcus</b>	
<b>Preparation:</b> Pneumovax 23®	
A 2nd dose of 23vPPV (Pneumovax 23®) is recommended 5–years after the 1st dose of 23vPPV.	