

DONOR	RECIPIENT	PROPHYLAXIS	PRE-EMPTIVE	TREATMENT PROTOCOL
Negative	Negative	<ul style="list-style-type: none"> None CMV negative blood products 	<ul style="list-style-type: none"> CMV PCR Viral Load with biopsy schedule for 3 months post-transplant (start POD 14) If >1000 copies/mL*, follow treatment protocol (induction dose) for both asymptomatic and symptomatic patients 	<ul style="list-style-type: none"> Valganciclovir 900mg po Bid x 3 Months (adjust for renal function) If admitted to ward due to CMV symptoms & unable to tolerate oral meds, use Ganciclovir 5mg/kg/dose IV Q12H (adjust for renal function) x 14 days, then use oral Valganciclovir for total of 3 months therapy CMV PCR Viral Load weekly until finished treatment, then for additional 2 weeks
Positive	Negative	<ul style="list-style-type: none"> Valganciclovir 900mg po Daily x 3months (adjust for renal function). Start when tolerating oral intake. <p><i>(consider ganciclovir 5mg/kg IV daily if unable to take oral valganciclovir in timely manner)</i></p>	<ul style="list-style-type: none"> CMV PCR Viral Load with biopsy schedule for 3 months post-transplant (start POD 14) If >1000 copies/mL *, follow treatment protocol (induction dose) If antibody or iv steroid bolus for rejection: Valganciclovir 900mg po daily x 2weeks (adjust for renal function) 	<ul style="list-style-type: none"> Valganciclovir 900mg po Bid x 3 Months (adjust for renal function) If unable to tolerate oral meds, then Ganciclovir 5mg/kg/dose IV Q12H x 14 days, then use oral Valganciclovir for total of 3 months therapy CMV PCR Viral Load weekly until finished treatment, then for additional 2 weeks
Positive or Negative	Positive	None	<ul style="list-style-type: none"> CMV PCR Viral Load with biopsy schedule for 3 months post transplant (start POD 14) If >5000 copies/mL* and symptomatic, follow treatment protocol (induction dose) If > 5000 copies/mL and asymptomatic, follow prophylactic dosing of Valganciclovir 900mg po Daily x 3 months (adjust for renal function) CMV PCR Viral Load weekly until finished treatment 	<ul style="list-style-type: none"> Valganciclovir 900mg BID x 3 Months (adjust for renal function) If unable to tolerate po, then Ganciclovir 5mg/kg/dose IV Q12H x14 days, then oral Valganciclovir for total of 3 months therapy CMV PCR Viral Load weekly until finished therapy, then for additional 2 weeks

- CMV PCR VIRAL LOAD = number of copies of CMV DNA Virus per millilitre
- Oral valganciclovir capsules are covered by BCTS Pharmacy Programme
- *biopsies generally follow this schedule in first 3 months post transplant: wk1,2,3,4,6,8,10,12

1. GANCICLOVIR DOSING IN RENAL IMPAIRMENT*

CrCl (mL/min)	Induction (iv) (adult and pediatric)	Maintenance (iv) (adult and pediatric)	
≥70	5 mg/kg/dose iv q12h	5 mg/kg iv q24h	
50-69	2.5 mg/kg/dose iv q12h	2.5 mg/kg iv q24h	
25-49	2.5 mg/kg/dose iv q24h	1.25 mg/kg/dose iv q12h	
10-24	1.25 mg/kg iv q24h	0.625 mg/kg iv q24h	
<10	1.25mg/kg iv 3x/wk after hemodialysis	0.625 mg/kg iv 3x/wk after hemodialysis	

*from drug monograph for Cytovene[®]

VALGANCICLOVIR ORAL DOSING IN RENAL IMPAIRMENT*

CrCl (mL/min)	Induction Dose (Adult)	Maintenance Dose (Adult)
≥60	900mg po BID	900mg po Once Daily
40-59	450mg po BID	450mg po Once Daily
25-39	450mg po Once Daily	450mg po Every Second Day
10-24	450mg po Every Second Day	450mg po Twice Weekly
<10	Use IV Ganciclovir – see IV dose in table above	Use IV Ganciclovir – see IV dose in table above

- from drug monograph for Valcyte

- $$\text{CrCl} = \frac{140 - \text{age}}{\text{Serum Creatinine (umol/L)}} \times 1.5 \text{ (males)} = \text{mL/sec}$$

$$\times 60 = \text{mL/min.}$$

Note for females multiply the whole above equation by an additional 0.85

- $$\text{CrCl} = \frac{140 - \text{age}}{\text{Serum Creatinine (umol/L)}} \times 1.5 \times 0.85 = \text{mL/sec} \times 60 = \text{mL/min.}$$

Ganciclovir Oral Pediatric Dosing Guidelines

If GFR > 50 mL/min/1.73 m²:

Patient's Weight	Ganciclovir Oral Dose
> 50 kg	1000 mg po tid
37.5-50 kg	750 mg po tid
24-37.5 kg	500 mg po tid

If GFR 25<50 mL/min/1.73 m², decrease dose by 50%.

If GFR < 25 mL/min/1.73 m², decrease the dose by 75%

If GFR < 40 mL/min/1.73 m², give dose bid

Filler G., Lampe D., von Bredow MA et al. Prophylactic oral ganciclovir after renal transplantation- dosing and pharmacokinetics Ped Neph 1998;12:6-9.

HSV PROPHYLAXIS			
<i>for 3months post transplant</i>			
HSV STATUS			
DONOR	RECIPIENT	PROPHYLAXIS	NOTES
Negative	Negative	None	
Positive	Positive or negative	<ul style="list-style-type: none"> Acyclovir 400mg bid 	<ul style="list-style-type: none"> Patients on ganciclovir or valganciclovir are covered for HSV
Positive or negative	Positive	<ul style="list-style-type: none"> Acyclovir 400mg bid 	<ul style="list-style-type: none"> Patients on ganciclovir or valganciclovir are covered for HSV

If antibody (basiliximab), iv steroid bolus or oral steroid bolus for rejection, re-initiate HSV prophylaxis for 2 weeks

2.3.5.3 Pneumocystis carinii Pneumonia (PCP)

PCP/Toxo PROPHYLAXIS		
<i>for 3 months post transplant or until prednisone weaned and during any augmentation of immunosuppression</i>		
DRUG OF CHOICE	<ul style="list-style-type: none"> • TMP-SMX one SS tab daily 	<ul style="list-style-type: none"> • TMP-SMX I DS tab/day for secondary PCP prophylaxis
ALTERNATIVES (IF SULFA ALLERGIC)	<ul style="list-style-type: none"> • Aerosolized Pentamidine 300mg once monthly via Respigard Nebulizer • Atovaquone 1500mg po daily • Dapsone 100mg po daily 	

- If antibody (basiliximab) ,iv steroid bolus or oral steroid bolus for rejection, re-initiate PCP prophylaxis for 2 weeks

2.3.5.5 Candidiasis

<i>ALL PATIENTS until discharge (longer if indicated)</i>
<ul style="list-style-type: none"> • Nystatin 100,000 units/ml, swish and swallow 1mL qid post op during hospital stay.
<ul style="list-style-type: none"> • Clotrimazole 100mg lozenges: Dissolve 1 lozenge in mouth and swallow 3-5X day (Compounded by MacDonald's Prescriptions, 746 West Broadway)