



## RACP Foundation Research Awards

### FINAL REPORT

<b>Project / Program Title</b>	Role of secondary prophylaxis with valganciclovir in the prevention of recurrent CMV disease in solid organ transplant recipients	
<b>Name</b>	Dr Bradley Gardiner	
<b>Award Received</b>	2017 Richard Kemp Memorial (Travelling) Fellowship	
<b>Report Date</b>	8 February 2018	
<b>Chief Investigator / Supervisor</b>	Dr David Snyderman Chief, Division of Geographic Medicine & Infectious Disease Tufts Medical Center Boston, MA	
<b>Administering Institution</b>	Tufts University/Tufts Medical Center	
<b>Funding Period</b>	Start Date:	24 March 2017
	Finish Date:	24 March 2018

#### PROJECT SUMMARY

Cytomegalovirus (CMV) is responsible for a significant burden of disease in transplant recipients. Infection is common and lifelong, with the immune system normally controlling the virus. Following transplantation, the use of powerful antirejection drugs results in immune suppression, and can lead to loss of viral control and a variety of manifestations including severe end-organ disease. Effective therapy with antiviral agents ganciclovir and valganciclovir is available, meaning this devastating complication is now treatable. However, following successful treatment, approximately 1 in 4 patients develops recurrent disease. One strategy that has become popular in recent years is the use of ongoing prophylactic antivirals (secondary prophylaxis) following treatment, however it has been unclear whether this has any significant impact on the overall likelihood of recurrence.

We demonstrated in this retrospective study of 170 solid organ transplant recipients that the use of secondary prophylaxis following treatment of CMV disease is able to delay, but not prevent recurrent disease. This suggests that routine secondary prophylaxis has limited clinical utility in the overall prevention of recurrent CMV disease.

### **PROJECT AIMS / OBJECTIVES**

The aim of this study was to determine if there was any overall reduction in the likelihood of recurrent disease from using secondary prophylaxis with valganciclovir following the successful treatment of an episode of CMV disease in solid organ transplant recipients. This was accomplished by performing a retrospective cohort study of 170 solid organ transplant recipients

### **SIGNIFICANCE AND OUTCOMES**

The findings of our study suggest that routine use of secondary prophylaxis for all patients following treatment of CMV does not reduce the risk of recurrent disease.

The next step from this research is to explore risk factors for recurrent disease. If patients at high risk for relapse can be identified at the time of treatment completion, interventions like regular virologic surveillance, secondary prophylaxis, and reduction in immunosuppression could be targeted towards those most likely to benefit (ie. an individualized approach).

### **PUBLICATIONS / PRESENTATIONS**

Gardiner BJ, Chow JK, Price LL, Nierenberg NE, Kent OM, Snyderman DR. Role of secondary prophylaxis with valganciclovir in the prevention of recurrent cytomegalovirus disease in solid organ transplant recipients. Clin Infect Dis 2017; 65(12):2000-7

This project was presented at ID Week 2017, the large annual US infectious diseases conference, and has led to additional follow-on projects.