collection phases. These patterns were similar between transplant teams caring for adult or pediatric donors and recipients. Among responding centers, it appears that medical management of recipients and their related donors by the same provider is common, and may not be viewed as a potential conflict-of-interest. Whether this potential conflict-of-interest affects donor care is unclear, and deserves further investigation.

Survey Responses *

<table>
<thead>
<tr>
<th>Provider responsible for donor care</th>
<th>Medical Clearance</th>
<th>Informed Consent</th>
<th>Medical Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intern/Family Practitioner</td>
<td>1 (1)</td>
<td>0 (1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Pediatric</td>
<td>5 (6)</td>
<td>1 (1)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Heme/Onc Physician</td>
<td>5 (6)</td>
<td>2 (2)</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Transplant Physician</td>
<td>71 (82)</td>
<td>72 (83)</td>
<td>78 (90)</td>
</tr>
<tr>
<td>Mid-level Provider</td>
<td>3 (3)</td>
<td>7 (8)</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Nurse</td>
<td>0 (0)</td>
<td>3 (3)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Missing</td>
<td>2 (2)</td>
<td>2 (2)</td>
<td>2 (2)</td>
</tr>
</tbody>
</table>

*Role of donor provider in care of Recipient

for recipient’s care

Synchronous responsibility      | 25 (29)           | 31 (36)          | 35 (40)            |

May be involved in recipient’s care    | 38 (44)           | 35 (40)          | 32 (37)            |

Not involved in recipient’s care    | 16 (18)           | 17 (20)          | 14 (16)            |

Not involved in transplant program or recipient’s care | 6 (7) | 2 (2) | 4 (5) |

Missing                           | 2 (2)             | 2 (2)            | 2 (2)              |

*No Responding Centers (%).

17 BK VIRUS INFECTION IS ASSOCIATED WITH HEMATURIA AND RENAL IMPAIRMENT IN RECIPIENTS OF ALLOGENIC HEMATOPOIETIC STEM CELL TRANSPLANTS

O’Donnell, P.H.1, Scannell, K.1, Josephson, M.A.1, Artz, A.S.1, Rich, E.1, Stock, W.1, van Beilen, K.1,2, The University of Chicago, Chicago, IL;2 The University of Chicago, Chicago, IL.

BK virus (BKV) is an important pathogen and cause of nephropathy in recipients of renal transplants, but its clinical significance in patients (pts) following hematopoietic stem cell transplantation (HSCT) is less well described. Over a 16 month period we prospectively measured BKV in the blood and urine of 124 pts who had undergone allogeneic HSCT (HLA-identical donor (n = 79), alternative-donor (HLA-mismatched-related, mismatched-unrelated, or cord) (n = 54)) between 1998-2007 and who were receiving in- or outpatient post-transplant care. Most pts (73%) received alemtuzumab-containing regimens. BK viruria was manifest at some time in 64.8% of pts; 16.9% developed BK viremia. All pts with BK viremia also had viruria. BK viruria developed at a median time post-HSCT of 24 d (range 3-138 d), while viruria was detected at a significantly longer median time of 128 d (range 62-307 d) (P<0.0001). Among clinical factors (disease, transplant type, alemtuzumab use, CMV viremia, GVHD, HLA-C locus status), only CMV viremia was significantly more common in pts with BK viruria and viremia. Given the association of BKV with hemorhagic cystitis, urinalyses from all pts were analyzed for the presence and number of red blood cells. There was a direct relationship between higher median and maximum levels of urinary BKV with both an increased occurrence, and greater degree, of microscopic hematuria (P<0.03). BK viremia was also associated with the development of hematuria (P = 0.05). Finally, BKV infection was analyzed along with other clinical factors in relation to the development of post-HSCT renal impairment. On multivariate analysis, only BK viremia (P = 0.000001) and undergoing an alternative-donor transplant (P = 0.002) were independent predictors of development of post-HSCT renal impairment, with BK viremia associated with a median 1.62 mg/dL rise in creatinine from the pre-transplant baseline. Two pts with BK viremia developed biopsy-proven BKV nephropathy, with both requiring hemodialysis. In summary, BK viruria is a common early finding in pts undergoing allogeneic HSCT, and higher urinary BKV levels are directly related to increased hematuria. BK viremia occurs later and less commonly, is associated with hematuria, and is an independent predictor of worsening renal function post-HSCT. Investigation of whether prophylaxis against, or treatment of, BKV in the post-HSCT setting mitigates the associated morbidity, especially kidney injury, warrants prospective evaluation.

18 HHV6 REACTIVATION IS AN IMPORTANT RISK FACTOR FOR POOR OUTCOMES IN MYELOABLATIVE, BUT NOT IN NON-MYELOABLATIVE TREATED ALLOGENIC HSCT PATIENTS

Paggert, A.P.J.1, Meijer, E.2, Kweken, L.3, Schutten, M.3, Correlinen, J.J.1, Baarle, D.1, Fries, E.2, Schuurman, R.2, Boelens, J.J.1,3,4 University Medical Center, Utrecht, Netherlands;2 University Medical Center, Utrecht, Netherlands;4 Erasmus Medical Center, Rotterdam, Netherlands.

Background: Haematopoietic stem cell transplantation (HSCT) is complicated by viral reactivations. Viral reactivations are major complications after HSCT. The role of Human Herpesvirus type 6 (HHV6) in complications after HSCT remains unclear. We found a strong association between HHV6 reactivation and poor outcome after HSCT in children after myeloablative conditioning regimens. Risk factors for the development of HHV6 reactivation in adults are unknown. We investigated the association of HHV6 reactivation and clinical outcomes.

Methods: In a retrospective cohort study (January 2005-December 2007), HHV6 DNA loads in plasma were monitored by realtime PCR in adult patients after allogeneic HSCT in two HSCT-centers in the Netherlands (Utrecht and Rotterdam). Previously, Epstein Barr virus (EBV)- and cytomegalovirus (CMV) DNA loads were prospectively monitored in these patients. EBV- and CMV-reactivations were pre-emptive treated according to local guidelines. HHV6 reactivation was defined as viral DNA load ≥1000 cp/mL. Associations between outcomes and various variables (age, gender, HSCT center, donor source, HLA match of donor and recipient, myeloablative (MA) versus non-myeloablative (NMA) conditioning regimens, EBV- and CMV-reactivation) were analyzed using Cox proportional hazard models.

Results: 108 patients (60 MA and 48 NMA recipients; 49 Utrecht and 59 Rotterdam) between 2005 and 2007 were included (median age 40.1; range 18–66 years). Median follow-up was 20 (range 1.4–35.8) months. 16/60 (27%) MA patients had HHV6 reactivation (mean 50323 cp/mL) compared to 2/48 (4%) NMA patients with marginal HHV6 reactivation (mean 1000 cp/mL). Median time of reactivation for HHV6 in MA patients was 19 (range 10—35) days, compared to 14 and 35 days in the 2 NMA patients. In multivariate analysis, MA conditioning was the only predictor for HHV6 reactivation (HR 0.15; 95%CI 0.03–0.65; p = 0.012). In addition, HHV6 reactivation was the only predictor for grade ≥2 acute Graft versus host disease (HR 6.2, 95%CI 2.8–13.9; p = 0.000) and Transplantation related mortality (HR 3.9, 95% CI 1.4–10.7; p = 0.010).

Conclusions: Early HHV6 reactivation is more common after MA than after NMA conditioning treatment and is associated with poor survival and severe acute GvHD. Screening for HHV6 reactivation might be important in the MA treated patients since early initiation of pre-emptive or prophylactic anti-viral treatment might influence the outcomes.

19 NATURAL KILLER (NK) CELLS ARE RESISTANT TO THE APOPTOTIC EFFECTS OF CORTICOSTEROIDS COMPARED TO T CELLS: IMPLICATIONS FOR ADOPTIVE NK CELL THERAPY FOLLOWING ALLOGENEIC HCT

Ramanathan, M., Landegger, A., Yokoyama, H., Smith, A., Childs, R. National Institute of Health, Bethesda, MD

In vivo animal data and preliminary data in humans show donor NK cells can mediate antitumor effects against malignancies when adoptively infused following allogeneic hematopoietic cell