

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Diagnosis of all eligible patients undergoing autologous or allogeneic stem cell transplant by allocation

Group and Diagnosis	Hematopoietic Stem Cell Transplantation	
	Levofloxacin (N=211)	No Prophylaxis (N=208)
Autologous Hematopoietic Stem Cell Transplantation (N=157)		
Neuroblastoma	41	39
Hodgkin lymphoma	14	11
Central nervous system tumor	9	11
Other malignant disease	14	16
Non-malignant disease	1	1
Allogeneic Hematopoietic Stem Cell Transplantation (N=262)		
ALL	54	46
AML	29	34
Other hematologic malignancy	17	20
Other malignant disease	8	6
Non-malignant disease	24	24

eTable 2. Chemotherapy, conditioning and graft versus host disease prophylaxis by allocation of all eligible patients

Chemotherapy	Acute Leukemia (N=381 Chemotherapy Cycles in 198 Patients)	
	Levofloxacin (N=185 cycles)	No Prophylaxis (N=196 cycles)
<i>Acute Myeloid Leukemia</i>		
Cytarabine, daunorubicin, etoposide	39	39
Cytarabine, etoposide	34	42
Mitoxantrone, cytarabine	21	17
Other	27	27
Missing	1	1
<i>Acute Lymphoblastic Leukemia</i>		
Mitoxantrone, vincristine, dexamethasone, asparaginase	10	11
Cytarabine, asparaginase	12	14
Cyclophosphamide, etoposide	10	20
Other	26	25
Missing	5	0
Conditioning	HSCT (N=419 Patients)	
	Levofloxacin (N=211)	No Prophylaxis (N=208)
<i>Autologous HSCT (N=157)</i>		
Busulfan/melphalan	28	32
Carboplatin based	23	26
Other	28	20
<i>Allogeneic HSCT (N=262)</i>		
Total body irradiation based	62	56
Busulfan based	47	57
Other	22	17
Unknown	1	0
GVHD Prophylaxis	Only Allogeneic HSCT (N=262 Patients)	
	Levofloxacin (N=132)	No Prophylaxis (N=130)
Calcineurin inhibitor alone	11	9
Calcineurin inhibitor and methotrexate	69	68
Calcineurin inhibitor and mycophenolate mofetil	27	28
Other	23	25
None	2	0
Serotherapy	Only Allogeneic HSCT (N=262 Patients)	
	Levofloxacin (N=132)	No Prophylaxis (N=130)
Alemtuzumab or anti-thymocyte globulin	57	62
None	75	68

Abbreviations: HSCT – hematopoietic stem cell transplantation

eTable 3: Organisms causing bacteremia by allocation^a

	Levofloxacin	No prophylaxis
Acute Leukemia		
Gram Positive	19	27
Viridans group streptococci	13	23
Coagulase negative staphylococci	4	1
<i>Staphylococcus aureus</i>	0	0
Other Gram positive	2 ^b	3 ^c
Gram Negative	5	20
<i>Escherichia coli</i>	2	7
<i>Pseudomonas aeruginosa</i>	1	4
<i>Klebsiella pneumoniae</i>	1	2
<i>Enterobacter cloacae</i>	1	1
Other Gram negative	0	6 ^d
Hematopoietic Stem Cell Transplantation		
Gram Positive	18	27
Viridans group streptococci	12	16
Coagulase negative staphylococci	2	3
<i>Staphylococcus aureus</i>	0	4
Other Gram positive	4 ^e	4 ^f
Gram Negative	6	14
<i>Escherichia coli</i>	4	5
<i>Pseudomonas aeruginosa</i>	0	2
<i>Klebsiella</i> species	1	1
<i>Enterobacter cloacae</i>	0	1
Other Gram negative	1 ^g	5 ^h

^a 136 organisms identified in 123 episodes of bacteremia

^b *Clostridium* species, *Stomatococcus mucilaginosus*

^c *Stomatococcus mucilaginosus* (2), *Streptococcus agalactiae*

^d *Haemophilus influenzae*, *Moraxella catarrhalis*, *Eikenella corrodens*, *Fusobacterium nucleatum*, *Neisseria* species, *Kingella kingae*

^e Streptococci species, *Gemella* species, *Granulicatella adiacens*, *Rothia mucilaginosus* (formerly *Stomatococcus mucilaginosus*)

^f *Streptococcus pneumoniae*, *Enterococcus faecalis*, nutritionally variant streptococcus, *Streptococcus agalactiae*

^g *Chryseomonas luteola*

^h *Bacteroides fragilis*, *Fusobacterium* species, *Leptotrichia trevisanii* (2), *Morganella morganii*

eTable 4. Clinical characteristics of patients evaluable and not evaluable for acquisition of resistance for selected intestinal organisms (N=617)

	Evaluable for Development of Resistance (N=326)	Not Evaluable for Development of Resistance (N=291)
Treatment Assignment, n (%)		
Levofloxacin	161 (49.4)	149 (51.2)
No prophylaxis	165 (50.6)	142 (48.8)
Acute Leukemia, n (%)		
Acute myeloid leukemia	65/88 (73.9)	63/110 (57.3)
Relapsed acute lymphoblastic leukemia	23/88 (26.1)	47/110 (42.7)
HSCT, n (%)		
Autologous transplantation	79/238 (33.2)	78/181 (43.1)
Allogeneic transplantation	159/238 (66.8)	103/181 (56.9)
Median Age in Years, (IQR)	7 (3-13)	11 (5-16)
Male, n (%)	191 (58.6)	182 (62.5)
Race, n (%)		
White	220 (67.5)	207 (71.1)
Black	45 (13.8)	35 (12.0)
Asian	26 (8.0)	13 (4.5)
Other or unknown	35 (10.7)	36 (12.4)
Ethnicity, n (%)		
Non-Hispanic	246 (75.5)	204 (70.1)
Hispanic	72 (22.1)	71 (24.4)
Unknown	8 (2.5)	16 (5.5)

Abbreviations: HSCT – hematopoietic stem cell transplantation; IQR – interquartile range