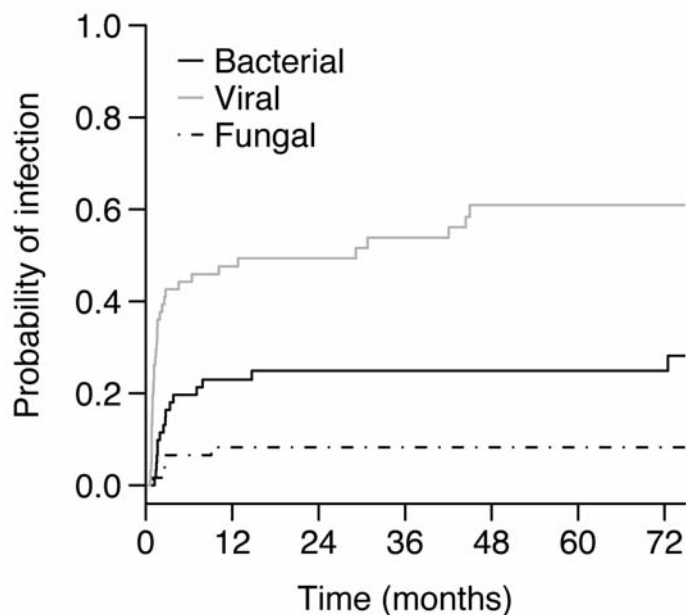


Long-term follow up after allogeneic stem cell transplantation in patients with severe aplastic anemia after cyclophosphamide plus antithymocyte globulin conditioning

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Online Supplementary Figure S1. Cumulative incidence of bacterial, fungal and viral infections at 72 months.

Online Supplementary Table S1. Risk factors for avascular necrosis.

| Variables | HR (95%CI) | P-value |
|---------------------------------|---------------------|---------|
| Age at transplant (per yr) | 1.06 (1.00 to 1.13) | 0.051 |
| Age at transplant \geq 21 yr* | 8.66 (1.08 to 69.2) | 0.042 |
| Male gender | 0.43 (0.11 to 1.61) | 0.21 |
| Prior IST | 2.12 (0.57 to 7.91) | 0.26 |
| Prior treatment by steroids | 1.40 (0.17 to 11.3) | 0.75 |
| HSCT > 1 year from diagnosis | 1.75 (0.35 to 8.75) | 0.49 |
| Acute GVHD 2-4 | 3.60 (0.96 to 13.5) | 0.058 |
| Chronic GVHD | 0.85 (0.18 to 4.11) | 0.84 |

* Cut off set at the median age (21 years).

Online Supplementary Table S2. Association between prior IST and outcomes post transplantation.

| Event | At 24 months | | At 72 months | | P-value* (IST vs no) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-------------------------|
| | No prior IST | Prior IST | No prior IST | Prior IST | |
| Acute GvHD | 23% (12 to 37) | 22% (7 to 44) | 23% (12 to 37) | 22% (7 to 44) | 0.97 |
| Chronic GvHD | 21% (10 to 35) | 34% (13 to 57) | 31% (17 to 47) | 34% (13 to 57) | 0.53 |
| Viral infection | 49% (33 to 63) | 50% (25 to 71) | 61% (44 to 75) | 59% (29 to 80) | 0.94 |
| Bacterial infection | 26% (14 to 40) | 22% (7 to 44) | 26% (14 to 40) | 22% (7 to 44) | 0.78 |
| Fungal infection | 7% (2 to 17) | 11% (2 to 30) | 7% (2 to 17) | 11% (2 to 30) | 0.55 |
| Parasitic infection | 6% (1 to 17) | 0% (0 to 0) | 6% (1 to 17) | 0% (0 to 0) | 0.35 |
| Secondary cancer | 0% (0 to 0) | 0% (0 to 0) | 0% (0 to 0) | 8% (0 to 32) | 0.13 |
| Osteonecrosis | 9% (2 to 21) | 13% (2 to 35) | 17% (6 to 34) | 32% (8 to 59) | 0.30 |
| Cardiovascular compl. | 3% (0 to 12) | 0% (0 to 0) | 14% (4 to 30) | 0% (0 to 0) | 0.13 |
| Endocrine dysfunction | 10% (3 to 21) | 12% (2 to 33) | 21% (9 to 38) | 12% (2 to 33) | 0.88 |
| Overall survival | 89% (80 to 100) | 89% (75 to 100) | 89% (80 to 100) | 80% (61 to 100) | 0.42 |

*Gray's test for comparison of cumulative incidence or log rank test.

Online Supplementary Table S3. Cumulative incidences of events and survival at 72 months according to transplant period.

| Event | 1991-1995 | 1996-2001 | 2002-2010 | P-value* |
|-------------------------------------|-----------------|-----------------|-----------------|----------|
| Acute GvHD | 31% (9 to 57) | 24% (8 to 44) | 19% (7 to 35) | 0.69 |
| Chronic GvHD | 31% (9 to 57) | 34% (15 to 55) | 27% (12 to 46) | 0.99 |
| Viral infection | 55% (23 to 79) | 57% (33 to 76) | 72% (31 to 91) | 0.34 |
| Bacterial infection | 23% (5 to 49) | 14% (3 to 33) | 33% (16 to 51) | 0.24 |
| Fungal infection | 8% (0 to 30) | 14% (3 to 33) | 4% (0 to 17) | 0.42 |
| Parasitic infection | 0% (0 to 0) | 10% (2 to 27) | 0% (0 to 0) | 0.25 |
| Secondary cancer | 0% (0 to 0) | 20% (6 to 40) | 0% (0 to 0) | 0.031 |
| Osteonecrosis | 26% (5 to 54) | 25% (9 to 45) | 5% (0 to 19) | 0.48 |
| Cardiovascular complications | 0% (0 to 0) | 0% (0 to 0) | 5% (0 to 21) | 0.43 |
| Endocrine dysfunction | 16% (2 to 42) | 15% (3 to 34) | 15% (5 to 31) | 0.53 |
| Overall survival | 85% (67 to 100) | 85% (71 to 100) | 85% (67 to 100) | 0.88 |

*Gray's test for comparison of cumulative incidence or log rank test.