

**Supplementary Table 1: Table of detailed characteristics of patients with therapy-related Myeloid neoplasms post auto-HCT.**

| patient | age at HCT | Sex | Lymphoma subtype | received radiotherapy | stage at diagnosis | number of comorbidities | extra nodal involvement | first line treatment | response to first line | time from diagnosis to relapse <18 months | first line treatment at relapse | Total number of salvage lines | Disease status prior to transplant | time from first line salvage to HCT (months) | Conditioning Regimen | Neutrophil Engraftment (Days) | Platelets Engraftment (Days) |
|---------|------------|-----|------------------|-----------------------|--------------------|-------------------------|-------------------------|----------------------|------------------------|-------------------------------------------|---------------------------------|-------------------------------|------------------------------------|----------------------------------------------|----------------------|-------------------------------|------------------------------|
| 1       | 44         | M   | HD               | yes                   | stage III-IV       | 0                       | yes                     | other                | CR                     | no                                        | others                          | 2                             | CR                                 | 43                                           | TEAM                 | 13                            | 15                           |
| 2       | 62         | F   | NHL              | no                    | stage III-IV       | 1                       | no                      | other                | CR                     | no                                        | others                          | 4                             | PR                                 | 47.7                                         | BEAM                 | 10                            | 15                           |
| 3       | 64         | M   | NHL              | no                    | stage III-IV       | 0                       | yes                     | RCHOP                | refractory             | yes                                       | nan                             | 0                             | PR                                 | N/A                                          | BEAM                 | 10                            | 15                           |
| 4       | 29         | M   | HD               | yes                   | stage I-II         | 0                       | no                      | ABVD                 | refractory             | yes                                       | GDP                             | 2                             | PR                                 | 4.9                                          | BEAM                 | 10                            | 15                           |
| 5       | 55         | F   | NHL              | no                    | stage III-IV       | 0                       | no                      | RCHOP                | refractory             | yes                                       | others                          | 5                             | PR                                 | N/A                                          | BEAM                 | 9                             | 31                           |
| 6       | 62         | F   | HD               | no                    | stage I-II         | 4                       | yes                     | ABVD                 | refractory             | yes                                       | DHAP                            | 1                             | PR                                 | 2.2                                          | BEAM                 | 10                            | 74                           |
| 7       | 54         | M   | NHL              | no                    | stage III-IV       | 0                       | yes                     | RCHOP                | CR                     | yes                                       | DHAP                            | 1                             | CR                                 | 7                                            | BEAM                 | 10                            | 13                           |
| 8       | 55         | F   | NHL              | no                    | stage III-IV       | 2                       | yes                     | CHOP                 | CR                     | no                                        | others                          | 1                             | CR                                 | 4.8                                          | BEAM                 | 9                             | 13                           |
| 9       | 64         | M   | HD               | no                    | stage III-IV       | 2                       | yes                     | ABVD                 | CR                     | yes                                       | DHAP                            | 2                             | CR                                 | 18.9                                         | TEAM                 | 11                            | 41                           |
| 10      | 34         | F   | NHL              | yes                   | stage I-II         | 0                       | no                      | RCHOP                | refractory             | yes                                       | GDP                             | 1                             | CR                                 | 3.2                                          | BEAM                 | 12                            | 34                           |
| 11      | 53         | M   | HD               | no                    | nan                | 1                       | nan                     | ABVD                 | refractory             | yes                                       | GDP                             | 1                             | PR                                 | 6                                            | BEAM                 | 11                            | 20                           |
| 12      | 65         | M   | NHL              | no                    | stage III-IV       | 3                       | yes                     | CHOP                 | CR                     | yes                                       | GDP                             | 1                             | CR                                 | 4.8                                          | BEAM                 | 12                            | 28                           |
| 13      | 63         | F   | NHL              | no                    | stage I-II         | 3                       | no                      | RCHOP                | CR                     | no                                        | GDP                             | 1                             | CR                                 | 3                                            | BEAM                 | 11                            | 15                           |

# Blood Cell Therapy –The official journal of APBMT- t-MN after autoHCT

| Relapse post HCT | time to relapse post HCT (months) | number of lines after relapse post HCT | Type of t-MN | time form HCT to diagnosis of t-MN (months) | Age at diagnosis is of t-MN | WBC at diagnosis of t-MN | ANC at diagnosis of t-MN | Hb at diagnosis of t-MN | Platelets at diagnosis of t-MN | Blast% at diagnosis of t-MN | Chromosome analysis at diagnosis of t-MN                                      | FISH at diagnosis of t-MN                            | NGS                    | R-IPSS for t-MDS | treatm ent for t-MN         | response to treatment | received Allo-HCT |
|------------------|-----------------------------------|----------------------------------------|--------------|---------------------------------------------|-----------------------------|--------------------------|--------------------------|-------------------------|--------------------------------|-----------------------------|-------------------------------------------------------------------------------|------------------------------------------------------|------------------------|------------------|-----------------------------|-----------------------|-------------------|
| yes              | 54                                | 1                                      | MDS          | 53                                          | 48                          | 58.7                     | nan                      | 8.5                     | 85                             | 8%                          | hypodiploid clone 44, XY, i(6)(p10), -7, -17                                  | negative                                             | N/A                    | 6.5              | Azaciti dine                | refractory            | no                |
| no               | 35                                | 0                                      | AML          | 34.7                                        | 64                          | 5.8                      | 2610                     | 9.1                     | 159                            | 30%                         | pseudodiploid clone 46, XX, -7, +mar                                          | monosomy 7 (565). Del 7q31 (31%)                     | N/A                    | -                | Azaciti dine                | refractory            | no                |
| yes              | 46                                | 3                                      | AML          | 45.9                                        | 68                          | 3.0                      | 300                      | 8.6                     | 13                             | 40%                         | N/A                                                                           | MLL (45%)                                            | N/A                    | -                | Azaciti dine                | refractory            | no                |
| no               | 61                                | 4                                      | AML          | 60.6                                        | 34                          | 35.0                     | 1474                     | 8.8                     | 23                             | 100%                        | pseudodiploid clone; add(6)(p23), t(11;9)(q23;p13), del(8)(q21), del(20)(q12) | negative                                             | N/A                    | -                | intensi ve chemo            | refractory            | no                |
| no               | 30                                | 0                                      | MDS          | 29.9                                        | 58                          | 4.7                      | 329                      | 6.9                     | 79                             | 8%                          | N/A                                                                           | monosomy 7 (51.5%)                                   | N/A                    | 7.5              | Azaciti dine                | refractory            | no                |
| no               | 44                                | 0                                      | MDS          | 44.0                                        | 66                          | 2.1                      | 1869                     | 9.1                     | 53                             | 0%                          | Inv 3                                                                         | negative                                             | N/A                    | 4.5              | BST                         | refractory            | no                |
| yes              | 35                                | 1                                      | MDS          | 34.6                                        | 57                          | 4.6                      | 2162                     | 9.9                     | 43                             | 7%                          | complex karyotype                                                             | del 5q32 (45.5%)                                     | TP53 (80%)             | 7.5              | BST                         | refractory            | yes               |
| no               | 24                                | 0                                      | MDS          | 23.6                                        | 57                          | 5.9                      | 1357                     | 9.5                     | 42                             | 8%                          | N/A                                                                           | N/A                                                  | no pahtogenic mutation | N/A              | Azaciti dine                | refractory            | no                |
| no               | 3                                 | 0                                      | MDS          | 3.4                                         | 64                          | 2.0                      | 740                      | 7.6                     | 53                             | 0%                          | hypodiploid 45XY                                                              | monosomy 7 (81%), extra copy chromosome 5 (15.5%)    | N/A                    | 5.5              | BST                         | refractory            | no                |
| no               | 13                                | 0                                      | MDS          | 12.8                                        | 35                          | 2.2                      | 836                      | 7.1                     | 13                             | 14%                         | t(3;21)(q26;q22), del (5)(q31q35)                                             | del 7q31 (9.5%), monosomy 7 (6.5%), del 5q32 (31.5%) | no pathogenic mutation | 9.5              | Azaciti dine                | refractory            | no                |
| yes              | 49                                | 1                                      | AML          | 48.8                                        | 57                          | 2.3                      | 1495                     | 7.1                     | 23                             | 70%                         | N/A                                                                           | Del 5 (3.2%) monosomy 5 (1.5%), monosomy 7 (3.5%)    | DNMT3A (6%)            | -                | Azaciti dine                | refractory            | no                |
| yes              | 45                                | 1                                      | AML          | 44.7                                        | 68                          | 1.3                      | 130                      | 6.7                     | 11                             | 405%                        | del 7                                                                         | del 7                                                | ASXL1, TET2, PTPN11    | -                | Azacita dine + venete lcoax | CR                    | no                |
| yes              | 21                                | 2                                      | MDS          | 20.9                                        | 65                          | 5.3                      | 3180                     | 10.9                    | 35                             | 0%                          | failed                                                                        | del 5 (92.5%), trisomy 8 (30%)                       | TP53 (33%)             | 4.0              | Azacita dine + venete lcoax | refractory            | no                |