# Transplantation role in T cell NHL

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- 19 years old male presented with left cervical and axillary LAPs and pectoralis muscle infiltration

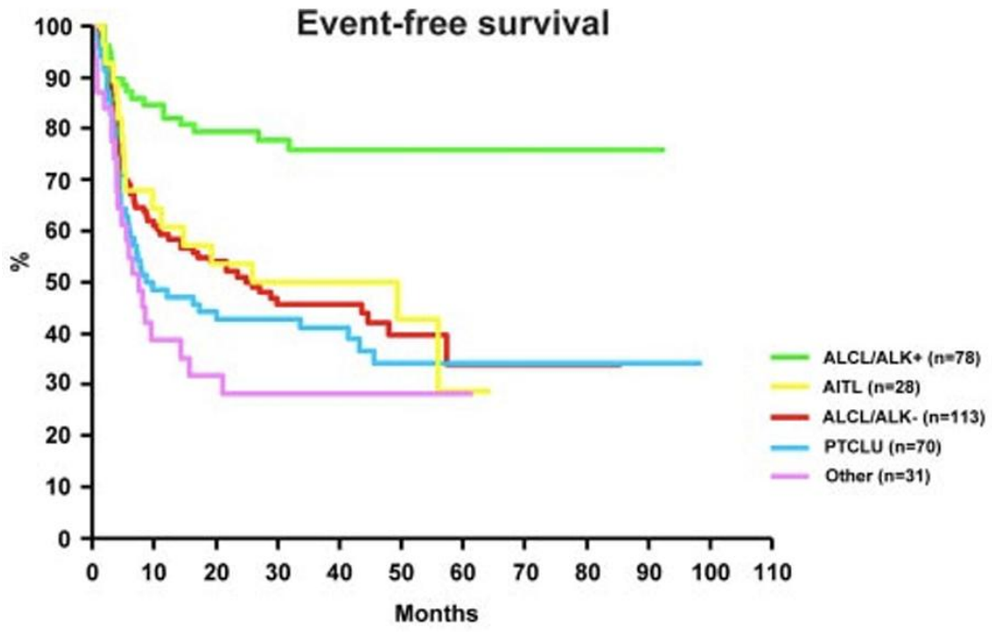
- Biopsy: Peripheral T cell Lymphoma ,NOS; CD30 positive

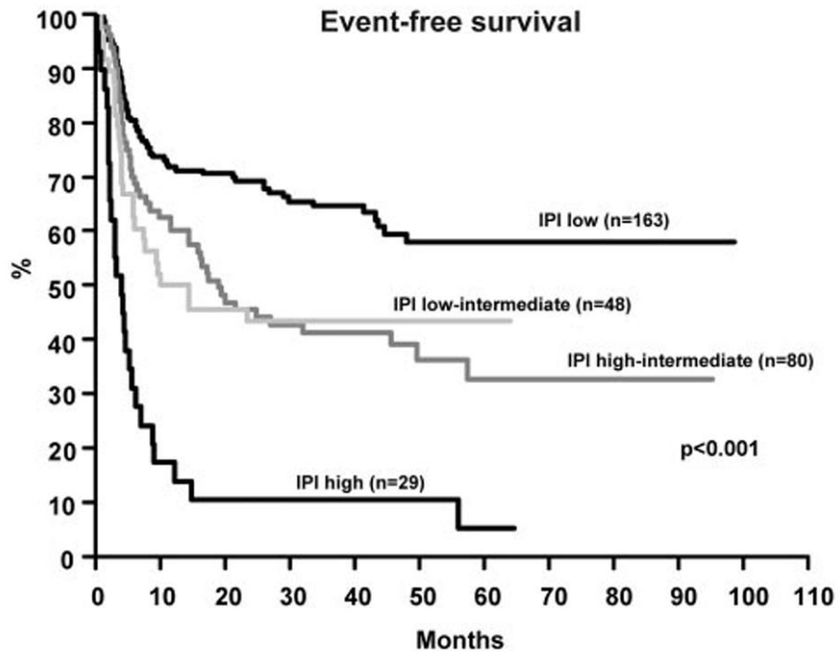
- CHOEP 6 times

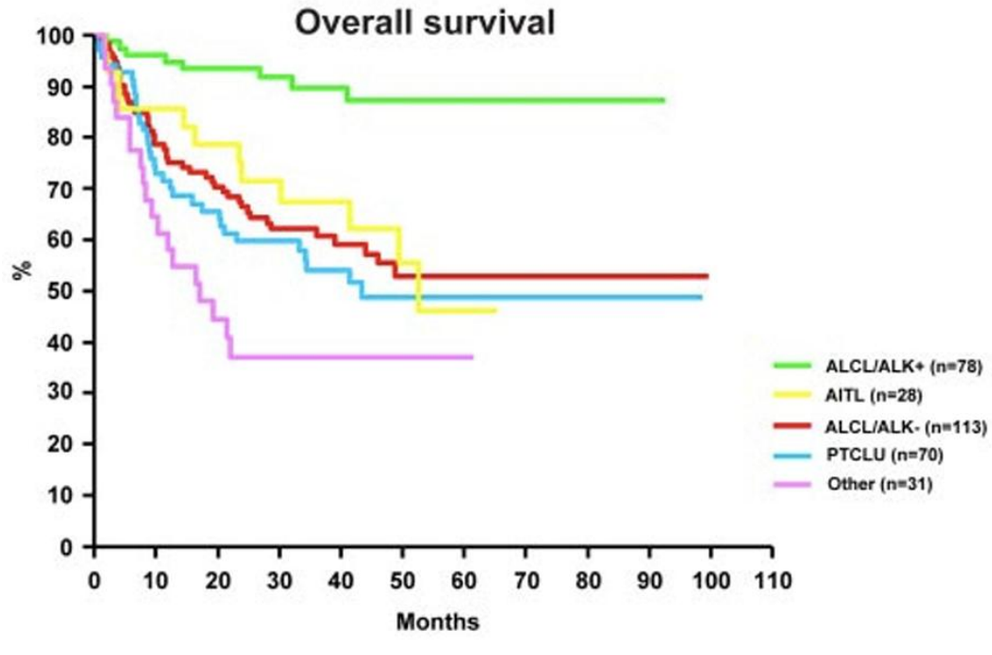
- Complete response

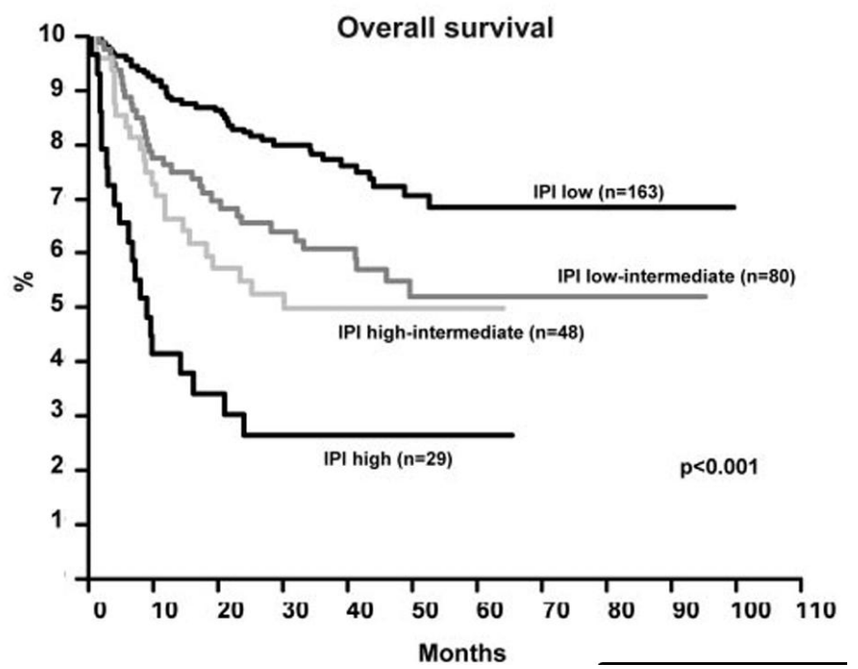
# Treatment and prognosis of mature T-cell and NK-cell lymphoma: an analysis of patients with T-cell lymphoma treated in studies of the German High-Grade Non-Hodgkin Lymphoma Study Group

Norbert Schmitz,[1] Lorenz Trümper,[2] Marita Ziepert,[3] Maike Nickelsen,[1] Anthony D. Ho,[4] Bernd Metzner,[5] Norma Peter,[6] Markus Loeffler,[3] Andreas Rosenwald,[7] and Michael Pfreundschuh[8]

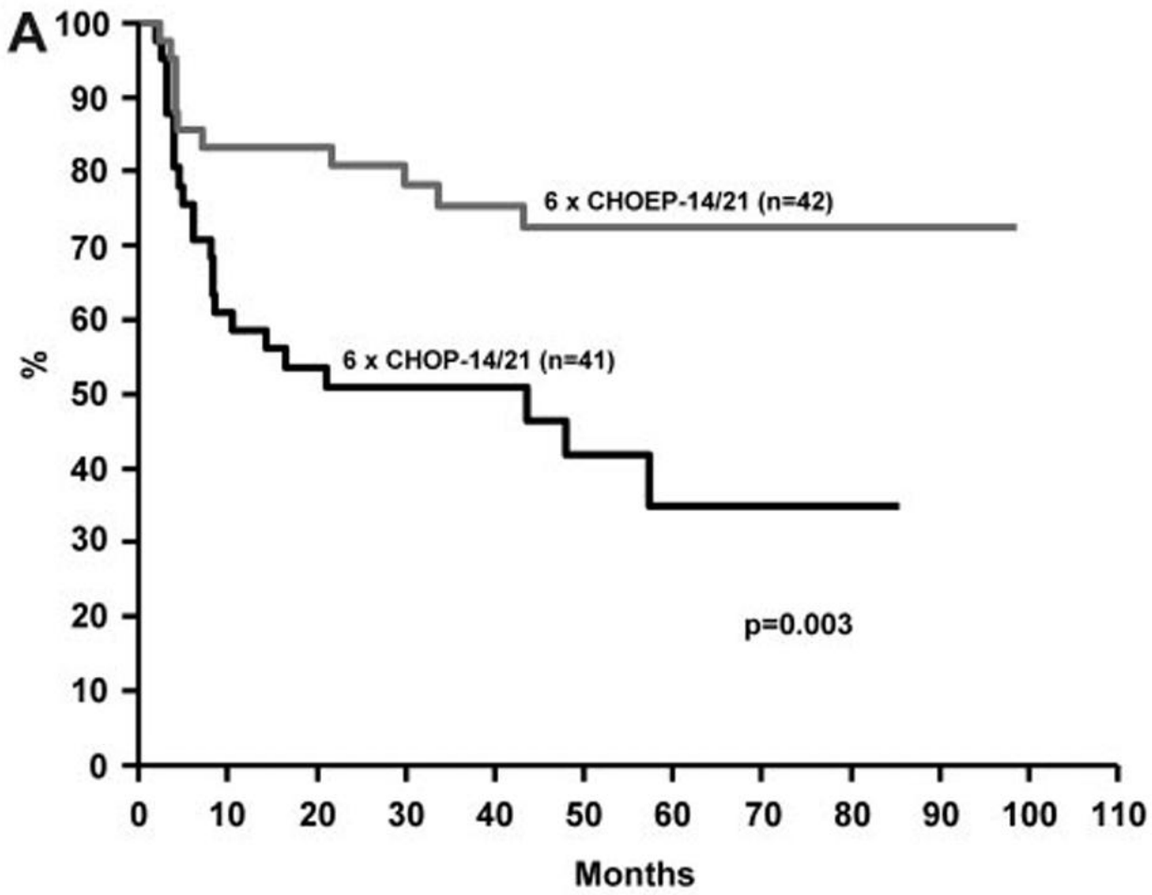


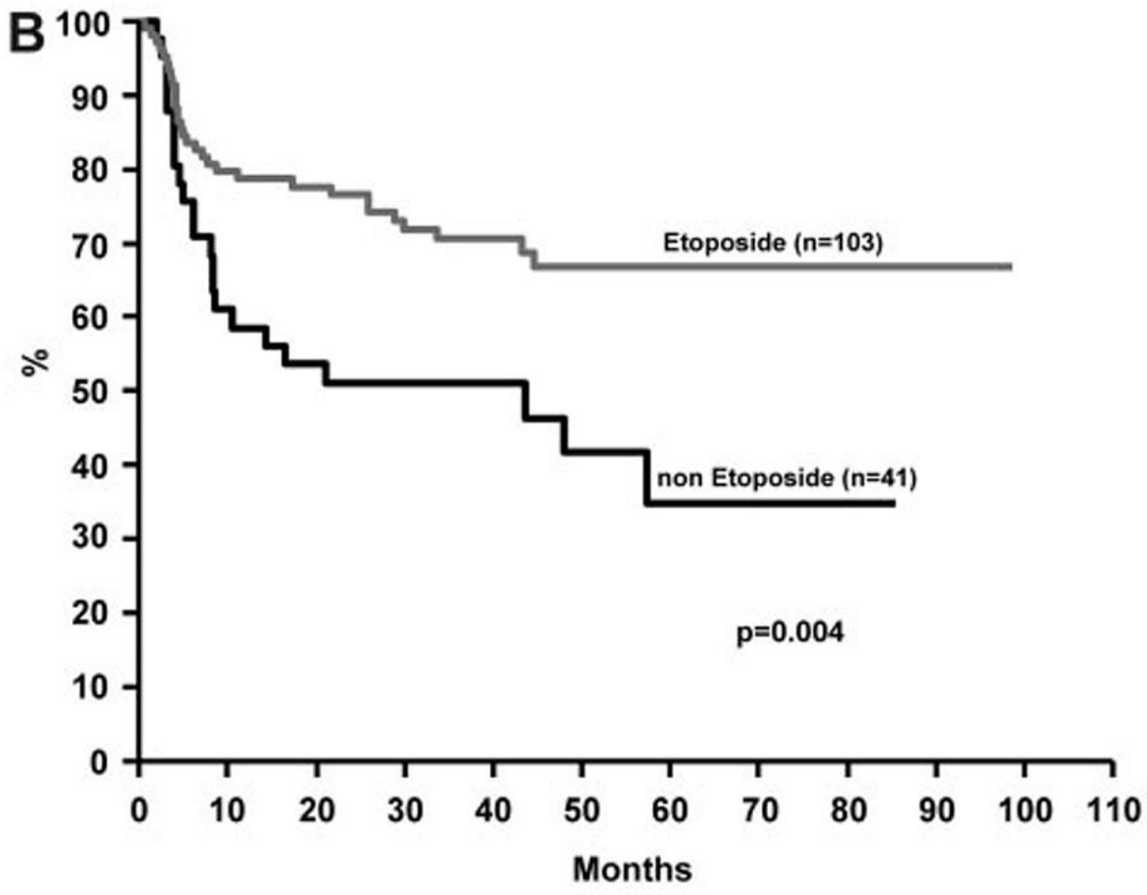



| | EFS | | | OS | | |
|---|---|---|---|---|---|---|
| | RR | 95% CI | *P* | RR | 95% CI | *P* |
| PTCLU vs ALK-negative ALCL | 1.1 | (0.7;1.6) | .720 | 1.1 | (0.7;1.7) | .768 |
| AITL vs ALK-negative ALCL | 0.6 | (0.3;1.0) | .046 | 0.5 | (0.2;1.0) | .037 |
| Other* vs ALK-negative ALCL | 1.7 | (1.0;2.7) | .038 | 2.0 | (1.2;3.5) | .009 |



What is your next approach?

1. Active surveillance

2. Radiotherapy

3. HDCT plus Auto-HSCT

4. RT and HDCT plus Auto-HSCT

5. Allo-HSCT

| | IPI[a] | PIT[b] | IPTCLP[c] | mPIT[d] |
|---|---|---|---|---|
| Age (≤60 versus >60) | X | X | X | X |
| ECOG (≤1 versus >1) | X | X | X | X |
| LDH (normal versus high) | X | X | | X |
| Ann Arbor stage (I–II versus III–IV) | X | | | |
| Extranodal involvement (<2 versus ≥2 sites) | X | | | |
| BM involvement (negative versus positive) | | X | | |
| Platelet cell count (≤150 versus >150 × $10^9$/l) | | X | | |
| Ki-67 (%) (≤75 versus >75) | | | | X |

Group risk were defined:

[a]Four groups: 0–1, low; 2, low-intermediate; 3, high-intermediate and 4–5, high.

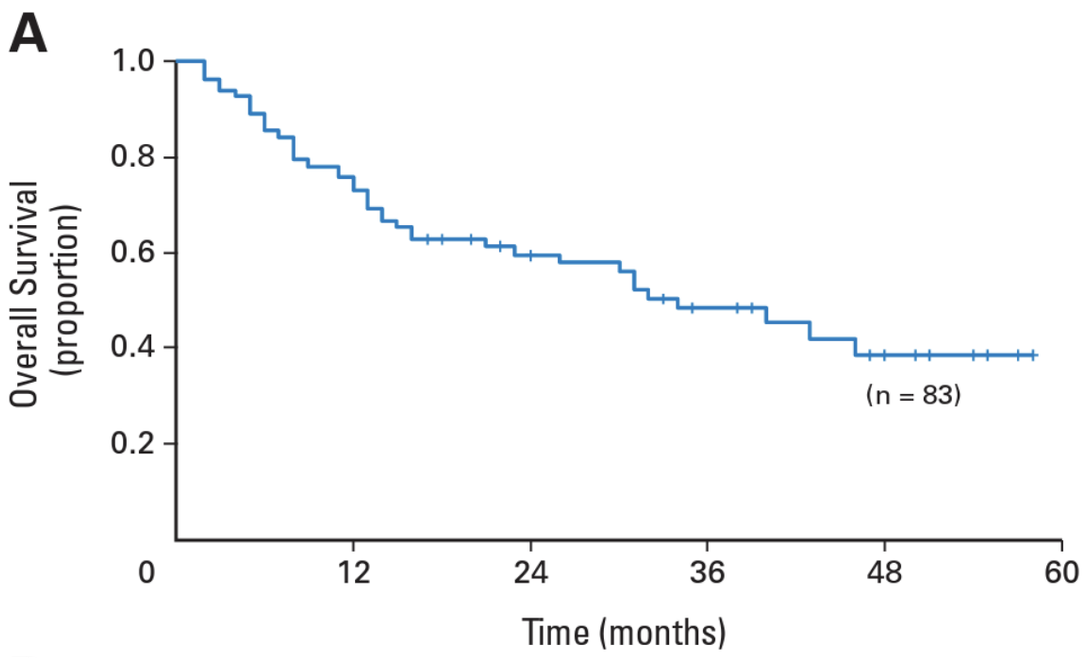
[b]Four groups: 1, low; 2, low-intermediate; 3, high-intermediate and 3–4, high.

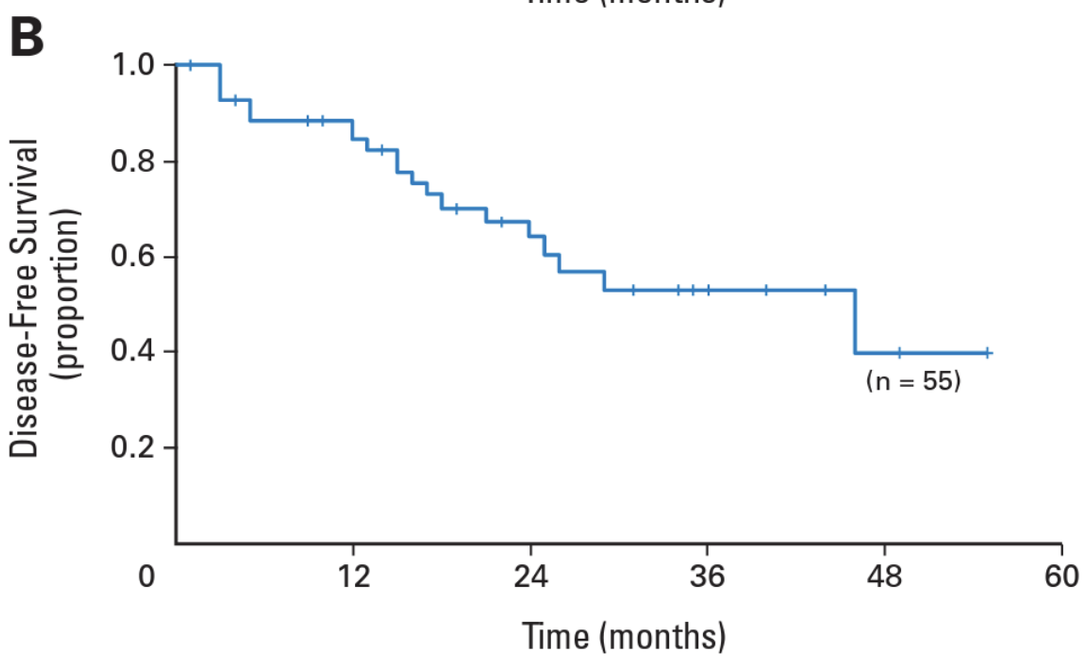
[c]Four groups: 0, low; 1, low-intermediate; 2, high-intermediate and 3, high.

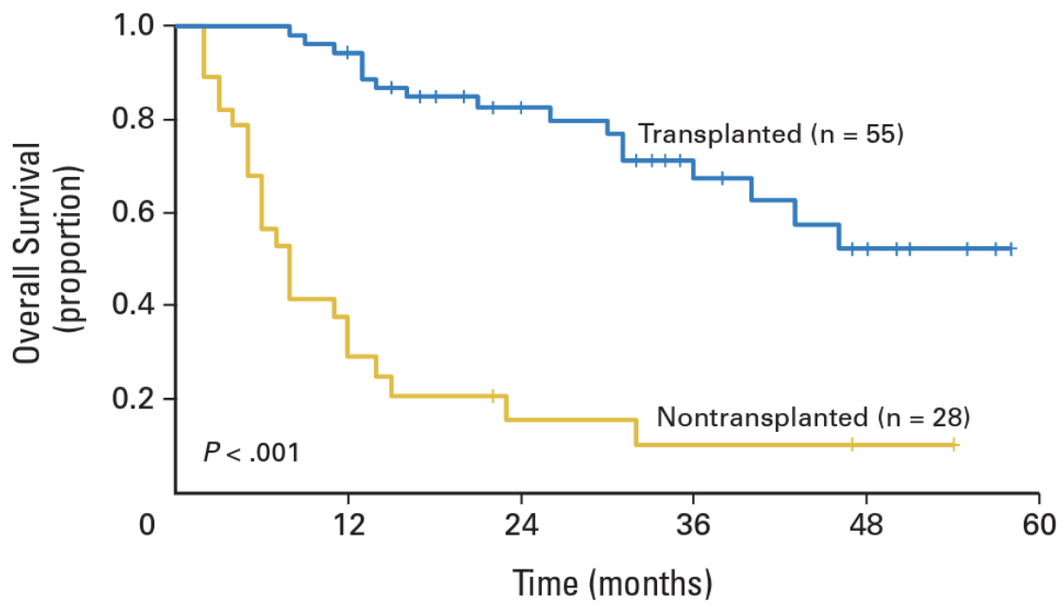
[d]Three groups: 0–1, low; 2, intermediate and 3–4, high.

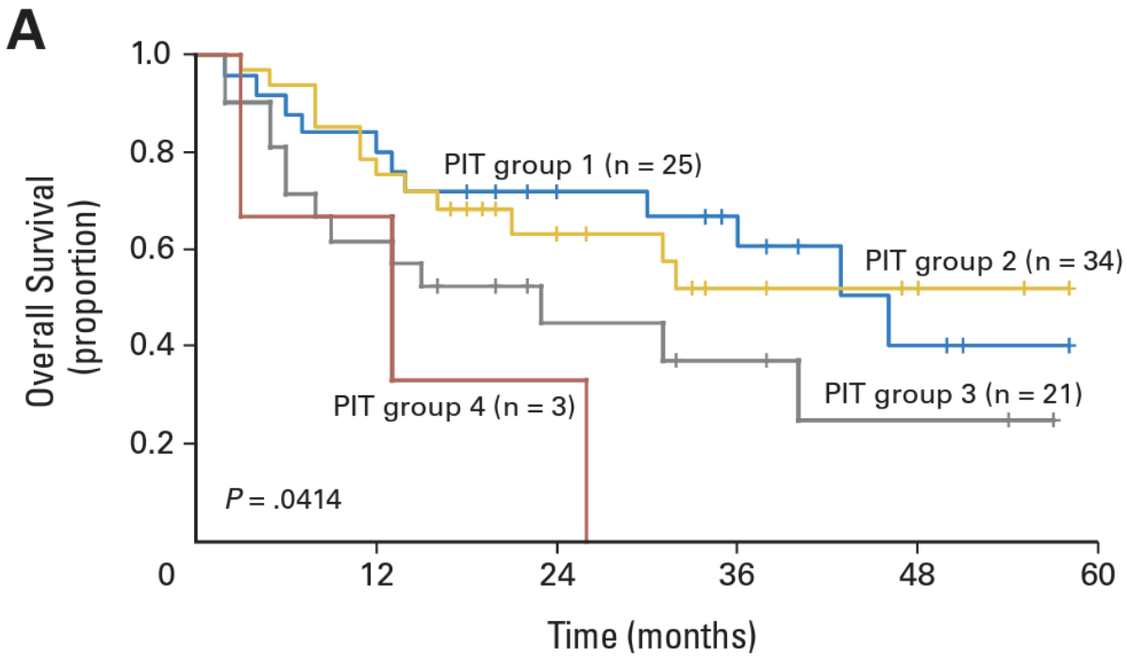
# Autologous Stem-Cell Transplantation As First-Line Therapy in Peripheral T-Cell Lymphomas: Results of a Prospective Multicenter Study

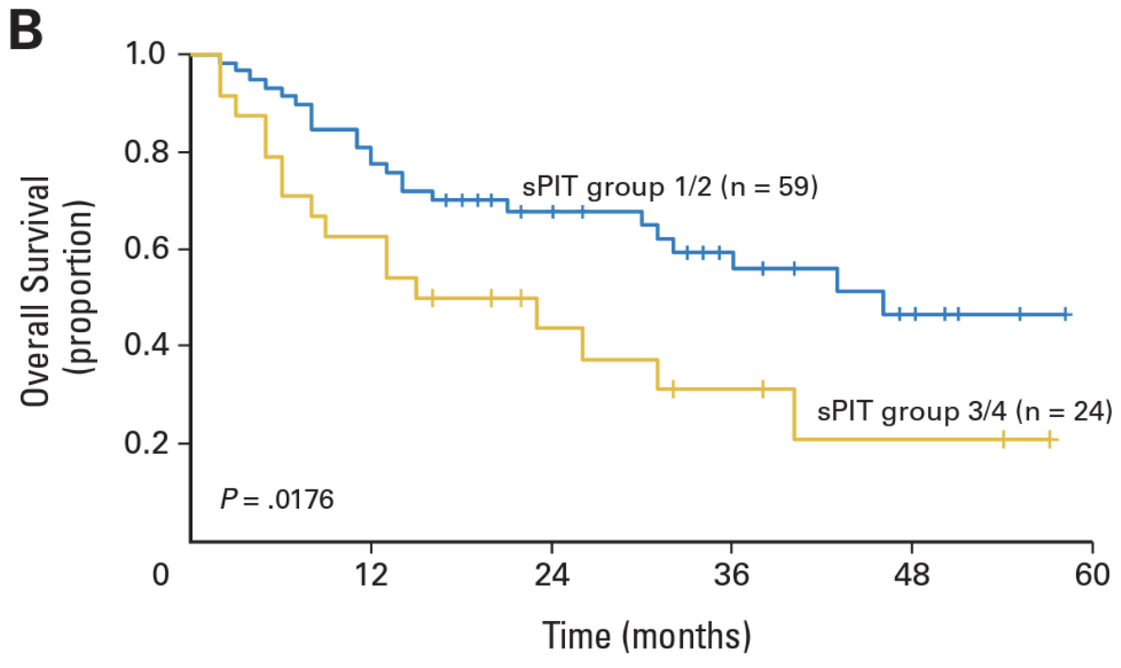
*Peter Reimer, Thomas Rüdiger, Eva Geissinger, Florian Weissinger, Christoph Nerl, Norbert Schmitz, Andreas Engert, Hermann Einsele, Hans Konrad Müller-Hermelink, and Martin Wilhelm*

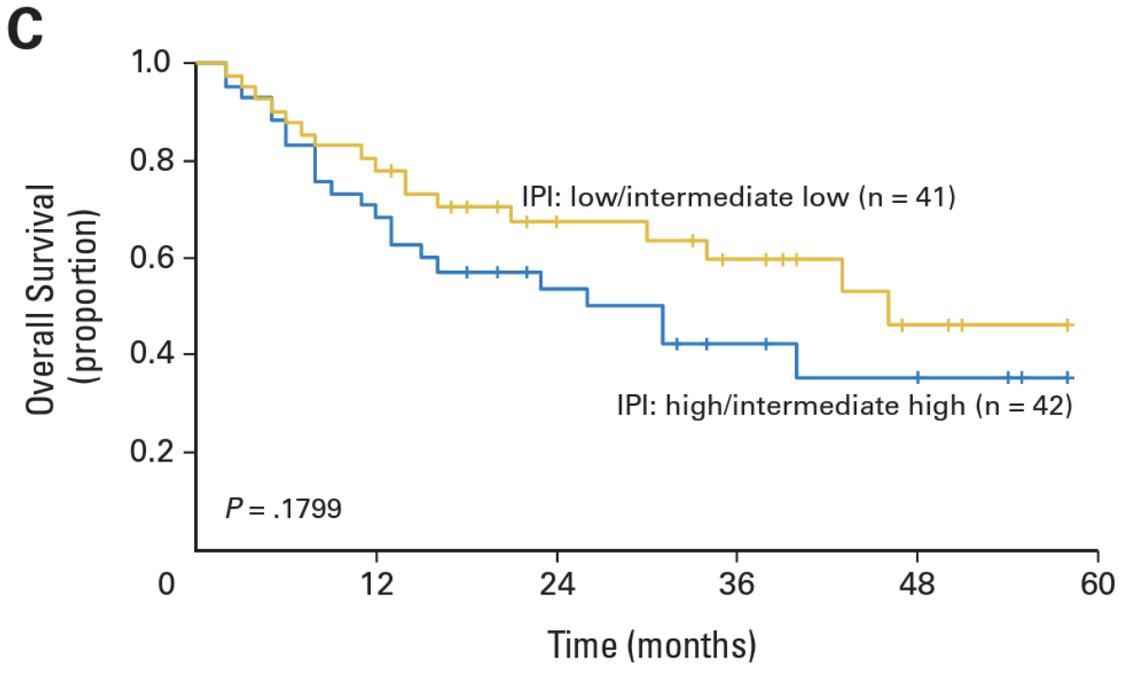


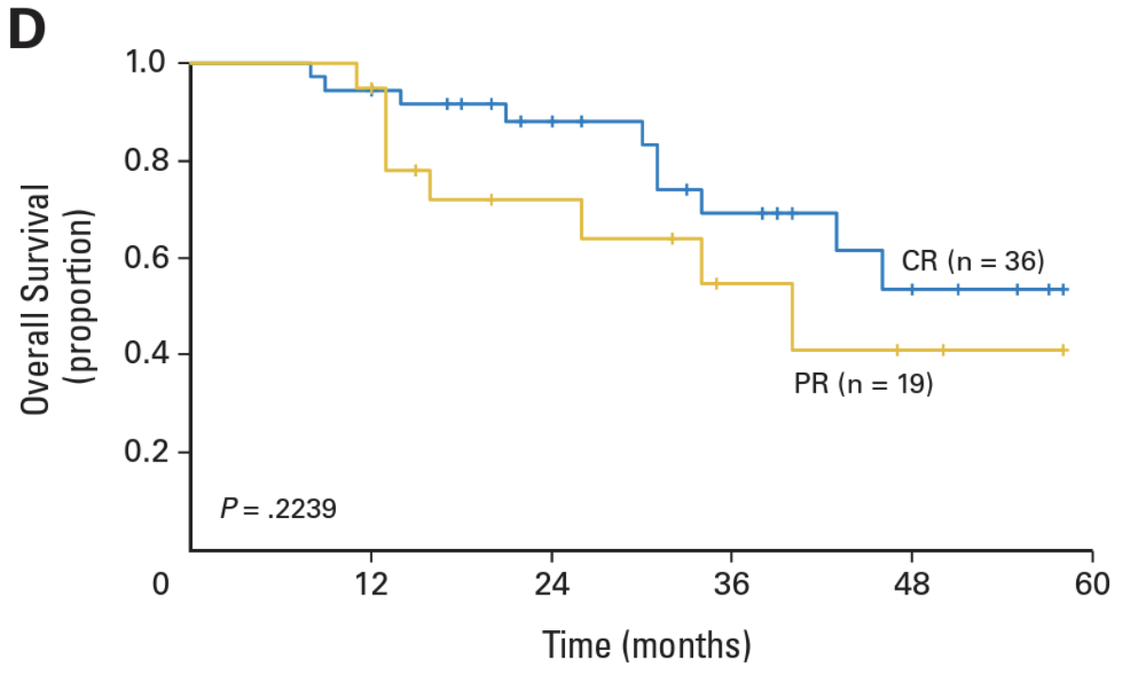




A
1.0
0.8
0.6
0.4
0.2
0
Overall Survival (proportion)
PIT group 1 (n = 25)
PIT group 2 (n = 34)
PIT group 3 (n = 21)
PIT group 4 (n = 3)
P = .0414
12
24
36
48
60
Time (months)

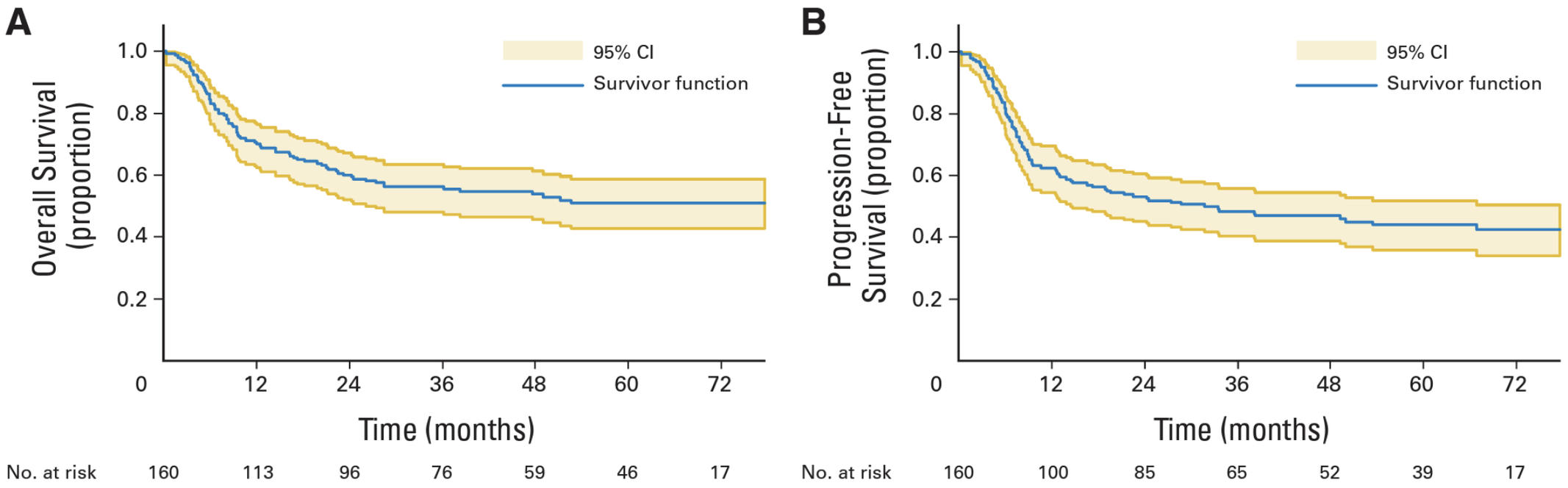

B
1.0
0.8
0.6
0.4
0.2
0
Overall Survival (proportion)
sPIT group 1/2 (n = 59)
sPIT group 3/4 (n = 24)
P = .0176
12
24
36
48
60
Time (months)

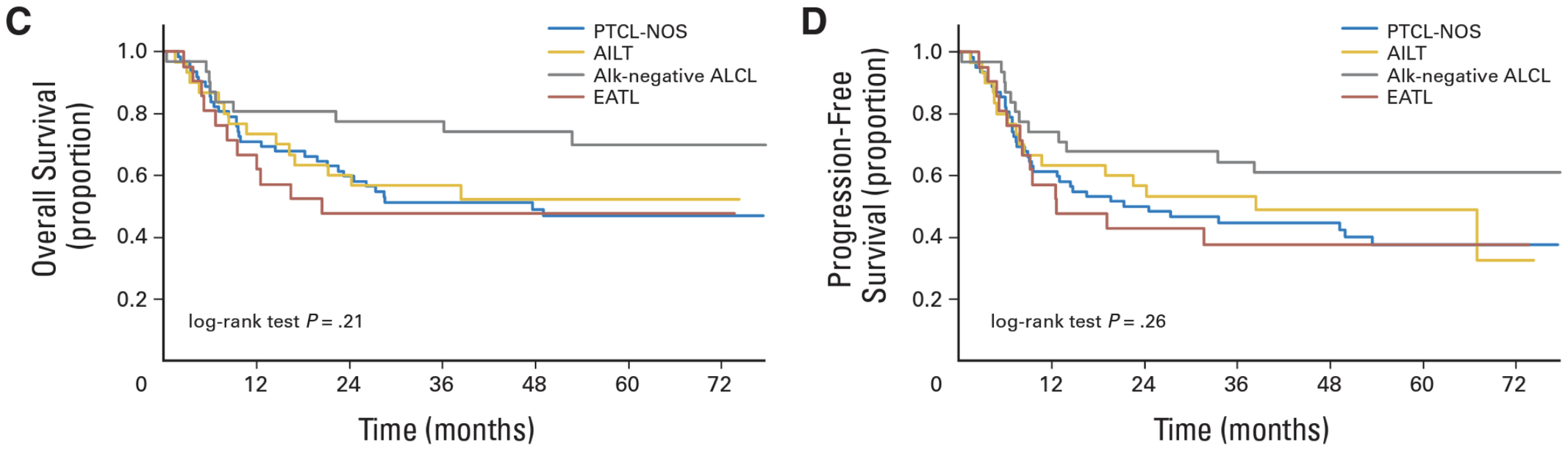

C
1.0
0.8
0.6
0.4
0.2
0
Overall Survival (proportion)
IPI: low/intermediate low (n = 41)
IPI: high/intermediate high (n = 42)
P = .1799
12
24
36
48
60
Time (months)


D
1.0
0.8
0.6
0.4
0.2
0
Overall Survival (proportion)
CR (n = 36)
PR (n = 19)
P = .2239
12
24
36
48
60
Time (months)

# Up-Front Autologous Stem-Cell Transplantation in Peripheral T-Cell Lymphoma: NLG-T-01

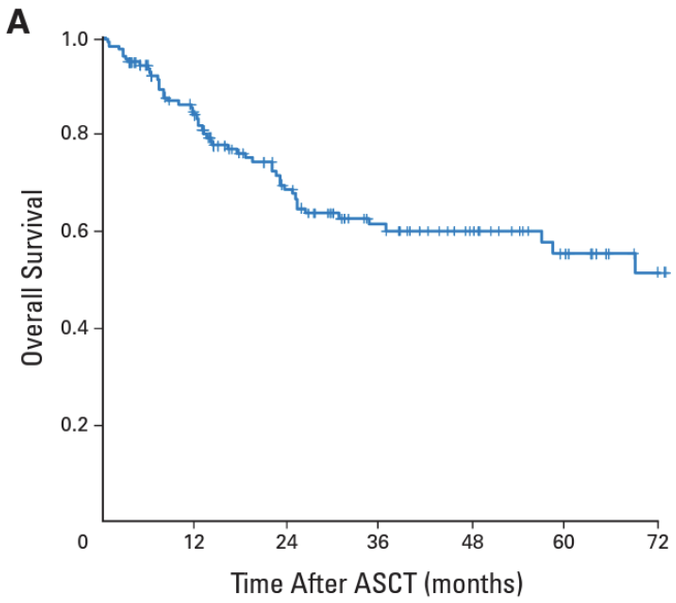
*Francesco d'Amore, Thomas Relander, Grete F. Lauritzsen, Esa Jantunen, Hans Hagberg, Harald Anderson, Harald Holte, Anders Österborg, Mats Merup, Peter Brown, Outi Kuittinen, Martin Erlanson, Bjørn Østenstad, Unn-Merete Fagerli, Ole V. Gadeberg, Christer Sundström, Jan Delabie, Elisabeth Ralfkiaer, Martine Vornanen, and Helle E. Toldbod*

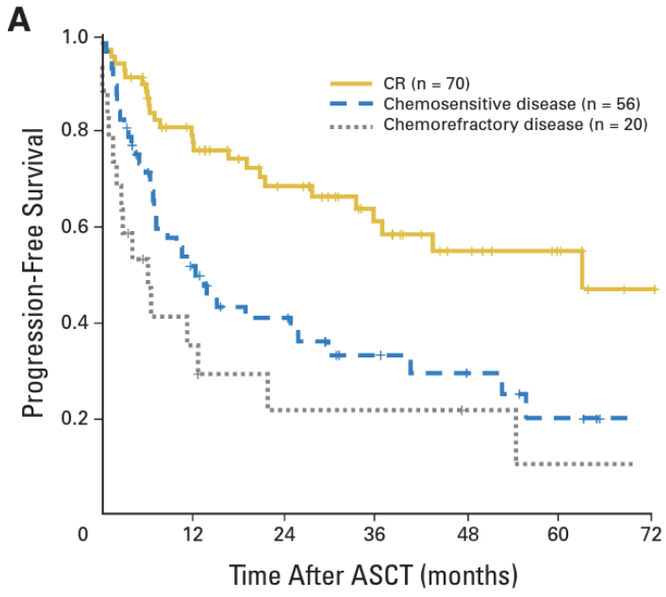


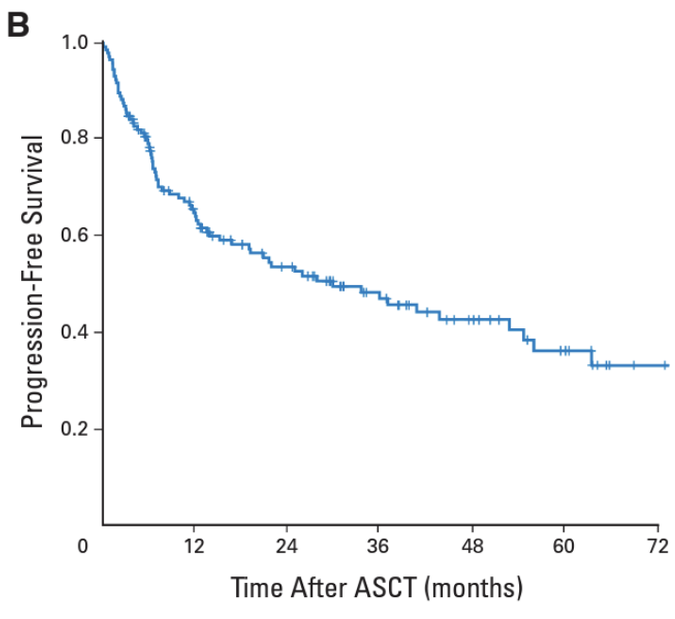



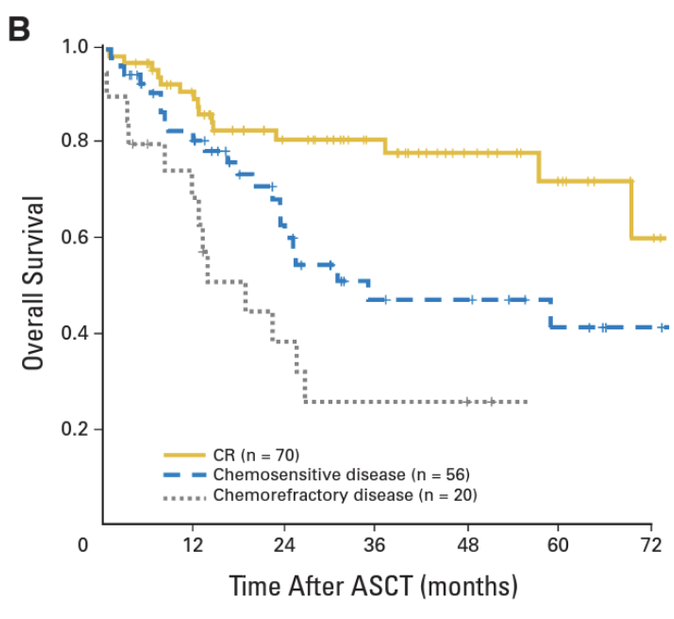
# High-Dose Therapy and Autologous Stem-Cell Transplantation in Angioimmunoblastic Lymphoma: Complete Remission at Transplantation Is the Major Determinant of Outcome—Lymphoma Working Party of the European Group for Blood and Marrow Transplantation

*Charalampia Kyriakou, Carmen Canals, Anthony Goldstone, Dolores Caballero, Bernd Metzner, Guido Kobbe, Hans-Jochem Kolb, Joachim Kienast, Peter Reimer, Jurgen Finke, Gunnar Oberg, Ann Hunter, Niklas Theorin, Anna Sureda, and Norbert Schmitz*



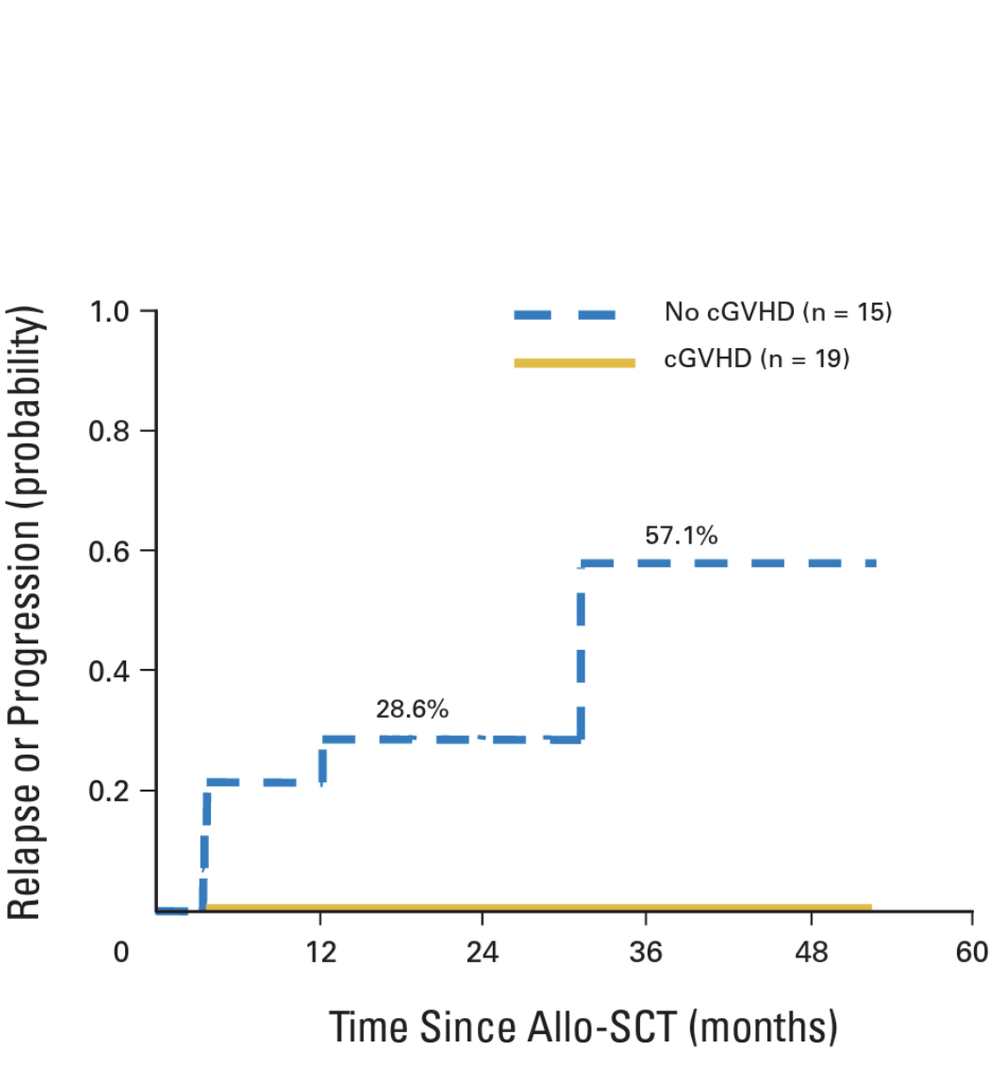

| Adverse Prognostic Factor | Multivariate Analysis: Relative Risk | 95% CI | *P* |
|---|---|---|---|
| NRM | | | |
| Disease status at ASCT | | | |
| Chemotherapy-refractory *v* chemotherapy-sensitive | 9.5 | 2.2 to 41 | .003 |
| Age ≥ 60 years at ASCT | 5.6 | 1.3 to 24 | .02 |
| Karnofsky score < 80 at ASCT | 3.5 | 0.7 to 19.0 | .1 |
| Relapse/progression | | | |
| Disease status at ASCT | | | |
| Chemotherapy-sensitive *v* CR | 2.0 | 1.2 to 3.4 | .01 |
| Chemotherapy-refractory *v* CR | 2.6 | 1.2 to 5.3 | .01 |
| Treatment lines prior to ASCT | | | |
| ≥ 2 | 5.2 | 1.2 to 22.4 | .03 |
| Disease stage at diagnosis | | | |
| IV *v* II to III | 1.9 | 0.9 to 4.0 | .08 |
| Conditioning regimen | | | |
| Chemotherapy alone *v* TBI/chemotherapy | 3.5 | 1.1 to 11.4 | .04 |
| PFS | | | |
| Disease status at ASCT | | | |
| Chemotherapy-sensitive *v* CR | 2.7 | 1.6 to 4.6 | < .001 |
| Chemotherapy-refractory *v* CR | 3.6 | 1.9 to 6.8 | < .001 |
| Karnofsky score < 80 at ASCT | 3.6 | 1.5 to 8.7 | .005 |
| Treatment lines prior to ASCT | | | |
| ≥ 2 | 4.5 | 1.0 to 19.2 | .04 |
| Conditioning regimen | | | |
| Chemotherapy alone *v* TBI/chemotherapy | 2.5 | 0.9 to 7.0 | .07 |
| OS | | | |
| Disease status at ASCT | | | |
| Chemotherapy-sensitive *v* CR | 2.5 | 1.3 to 4.8 | .006 |
| Chemotherapy-refractory *v* CR | 5.4 | 2.5 to 11.8 | < .001 |
| Karnofsky score < 80 at ASCT | 2.9 | 1.1 to 7.6 | .03 |
| Elevated LDH at diagnosis | 2.5 | 1.1 to 5.7 | .03 |
| Treatment lines prior to ASCT | | | |
| ≥ 2 | 3.4 | 1.0 to 11.2 | .05 |
| Age ≥ 60 years at ASCT | 1.7 | 0.94 to 3.2 | .08 |

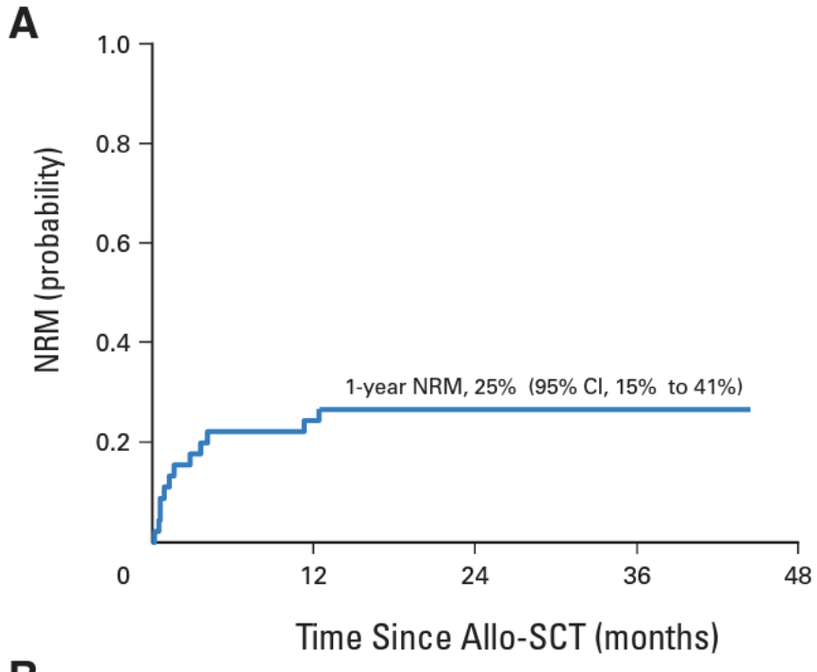
- Most patients with ALK-positive anaplastic large cell lymphoma (ALCL). Such patients have five-year overall survival (OS) rates ranging from 70 to 93 percent after anthracycline-based chemotherapy.

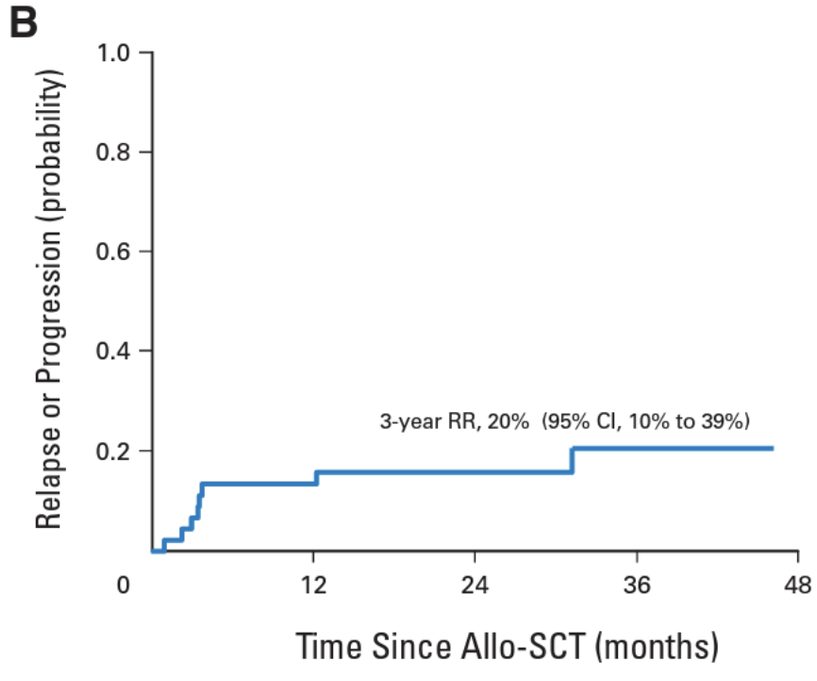
- Patients with localized PTCL, not otherwise specified (PTCL, NOS) and a low or low-intermediate International Prognostic Index (IPI) score. Five-year OS rates are 74 and 49 percent among patients with a low (ie, zero to 1) or low-intermediate (ie, 2) IPI score, respectively

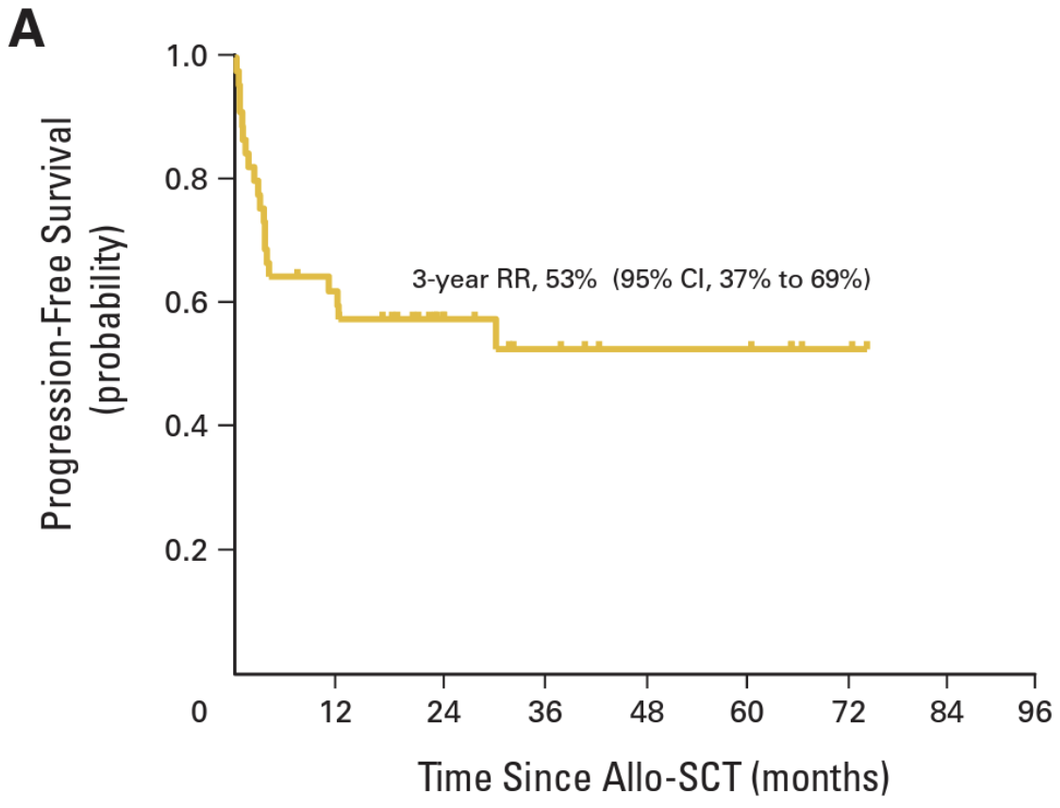
# Allogeneic Stem Cell Transplantation Is Able to Induce Long-Term Remissions in Angioimmunoblastic T-Cell Lymphoma: A Retrospective Study From the Lymphoma Working Party of the European Group for Blood and Marrow Transplantation

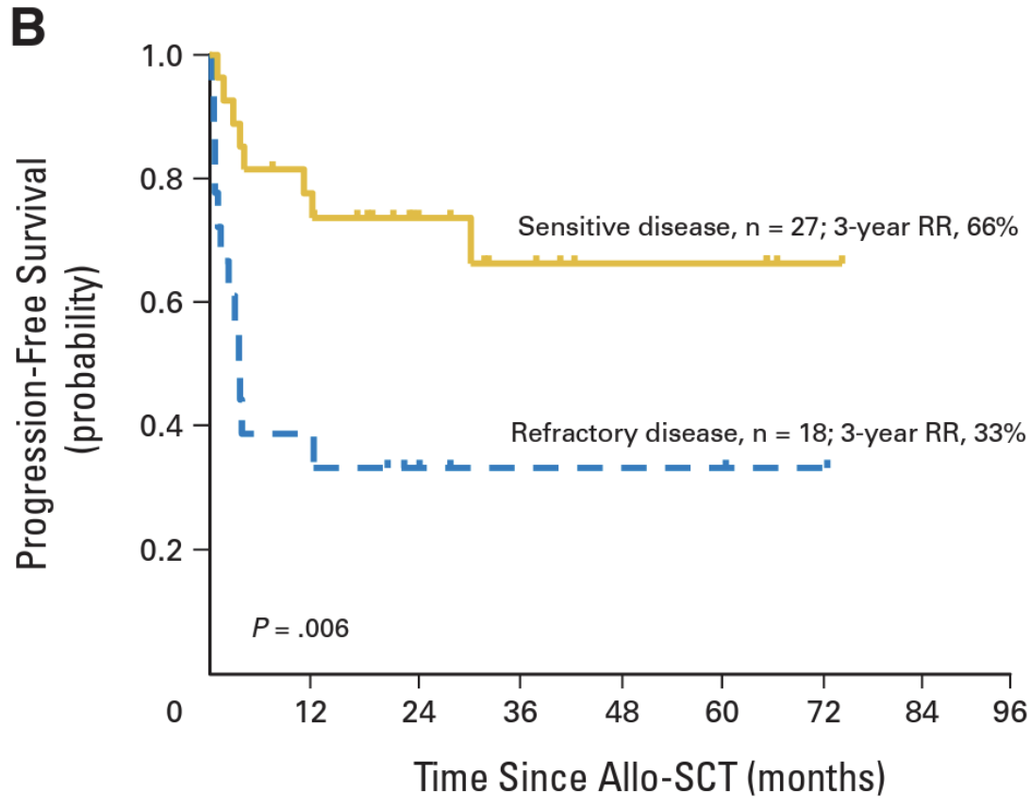
*Charalampia Kyriakou, Carmen Canals, Jürgen Finke, Guido Kobbe, Jean-Luc Harousseau, Hans-Jochem Kolb, Nicolas Novitzky, Anthony H. Goldstone, Anna Sureda, and Norbert Schmitz*

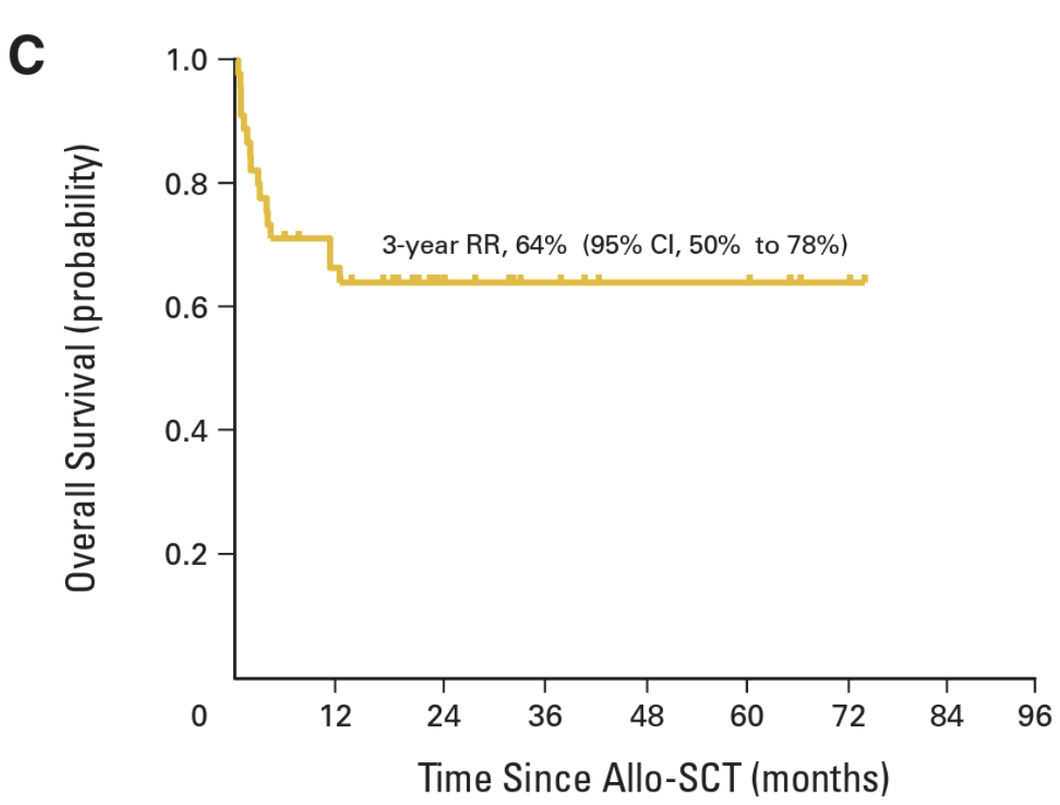


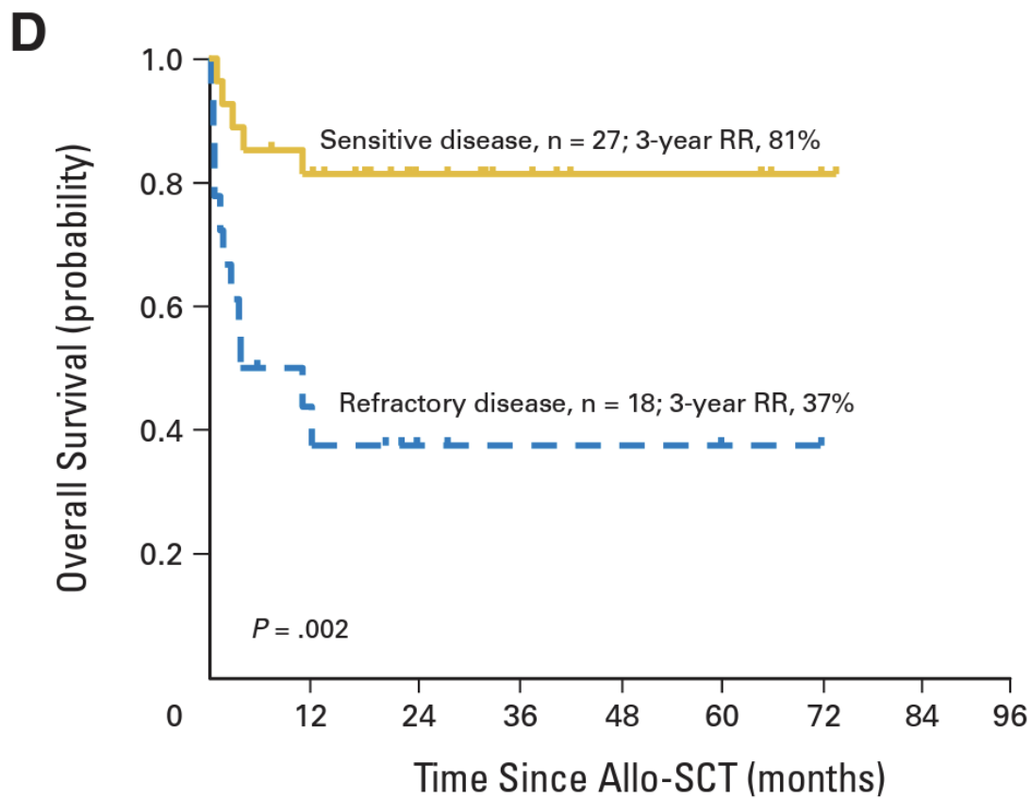




A
1.0
0.8
0.6
0.4
0.2
0
Progression-Free Survival (probability)
3-year RR, 53% (95% CI, 37% to 69%)
12
24
36
48
60
72
84
96
Time Since Allo-SCT (months)

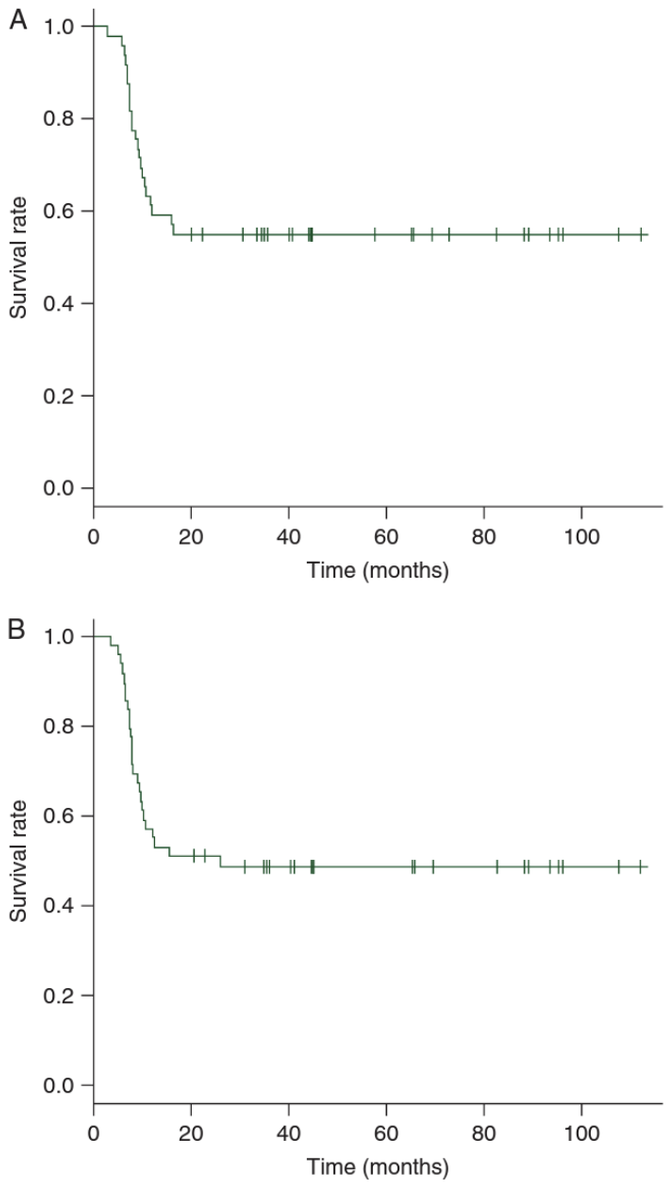

B
1.0
0.8
0.6
0.4
0.2
0
Progression-Free Survival (probability)
Sensitive disease, n = 27; 3-year RR, 66%
Refractory disease, n = 18; 3-year RR, 33%
P = .006
12
24
36
48
60
72
84
96
Time Since Allo-SCT (months)

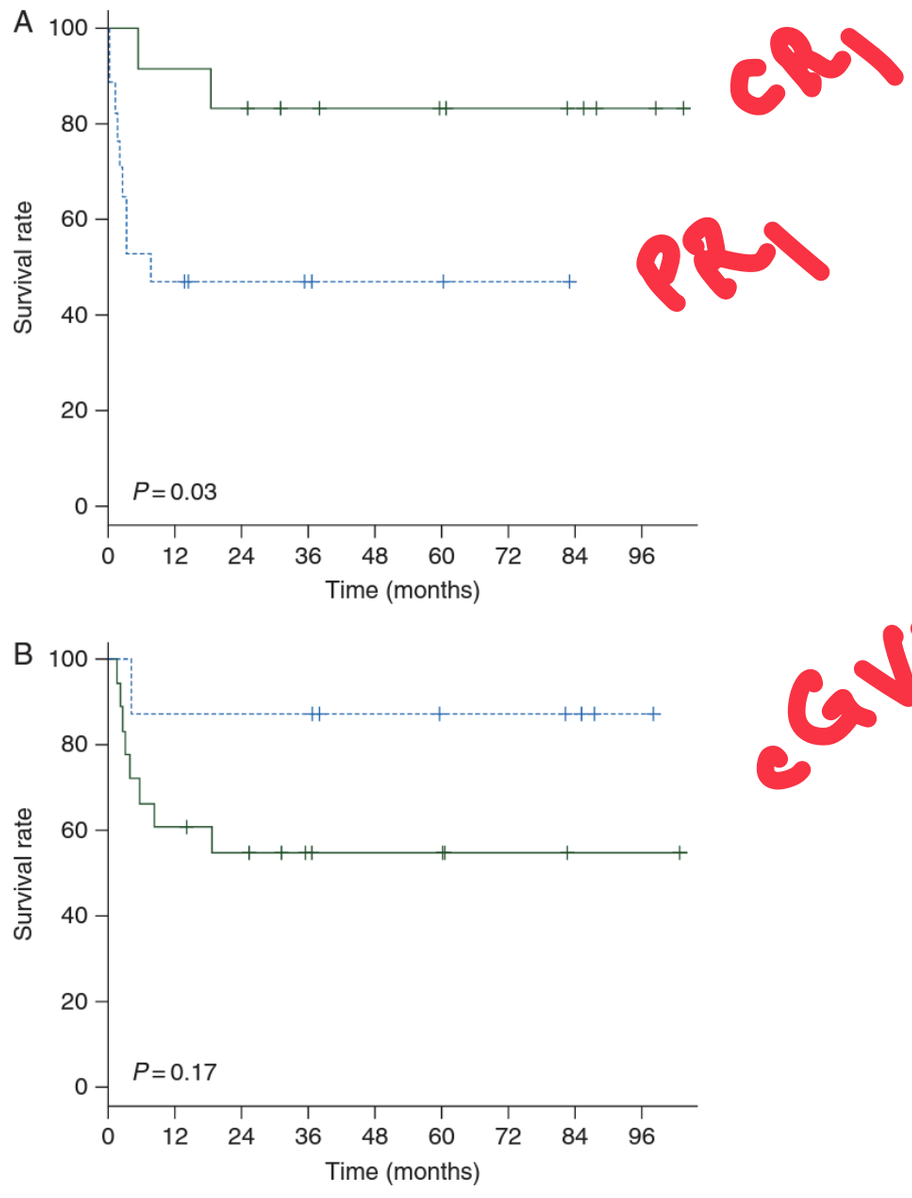

C
1.0
0.8
0.6
0.4
0.2
0
Overall Survival (probability)
3-year RR, 64% (95% CI, 50% to 78%)
12
24
36
48
60
72
84
96
Time Since Allo-SCT (months)


D
1.0
0.8
0.6
0.4
0.2
0
Overall Survival (probability)
Sensitive disease, n = 27; 3-year RR, 81%
Refractory disease, n = 18; 3-year RR, 37%
P = .002
12
24
36
48
60
72
84
96
Time Since Allo-SCT (months)

# Upfront allogeneic stem-cell transplantation for patients with nonlocalized untreated peripheral T-cell lymphoma: an intention-to-treat analysis from a single center

M. Loirat[1], P. Chevallier[1], C. Leux[2], A. Moreau[3], C. Bossard[3], T. Guillaume[1], T. Gastinne[1], J. Delaunay[1], N. Blin[1], B. Mahé[1], V. Dubruille[1], K. Augeul-Meunier[1], P. Peterlin[1], H. Maisonneuve[4], P. Moreau[5], N. Juge-Morineau[6], H. Jardel[7], M. Mohty[8], P. Moreau[1] & S. Le Gouill[1,9,10*]



- After 9 months in follow up CT-scan, a 3cm mass was found in anterior mediastinum
- Bx : PTCL, NOS

Which is your choice?

1. Salvage chemotherapy
2. Brentuximab Vedotin
3. Brentuximab Vedotin Plus chemotherapy
4. Pralitrexate

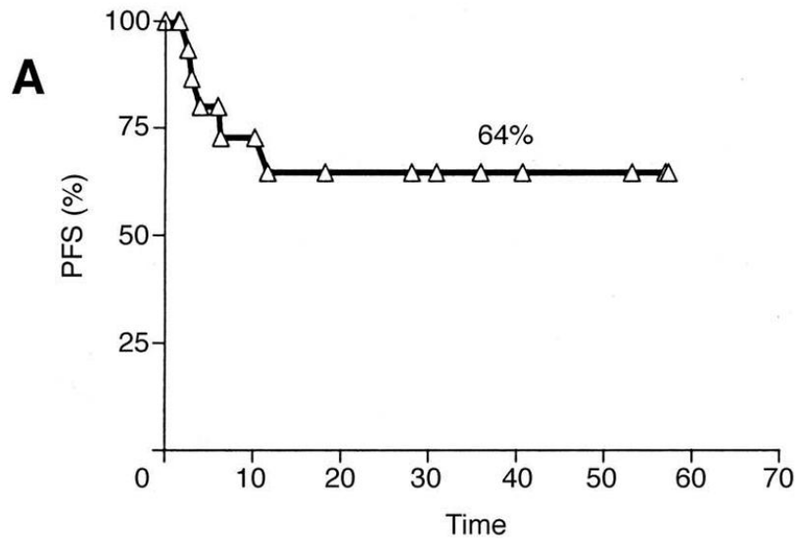
# Auto-HSCT vs. Allo-HSCT

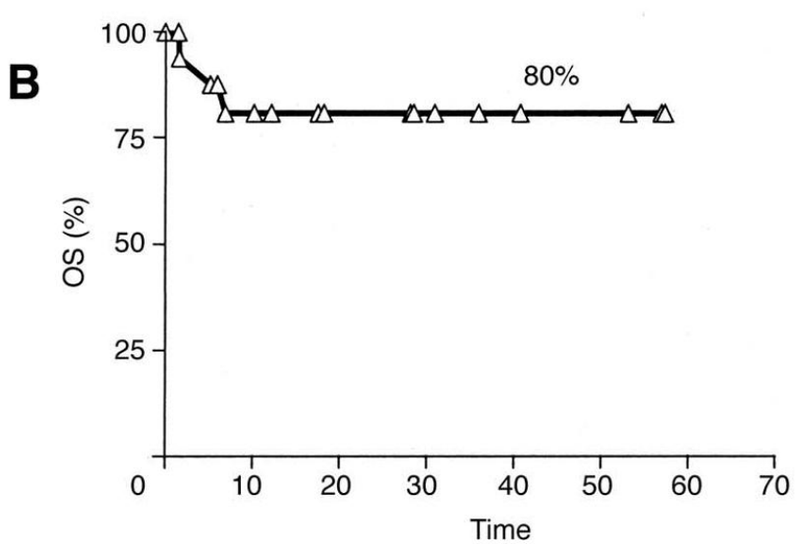
- For patients who have not undergone a prior autologous HCT and who achieve a CR with salvage chemotherapy, autologous HCT suggest rather than allogeneic HCT.

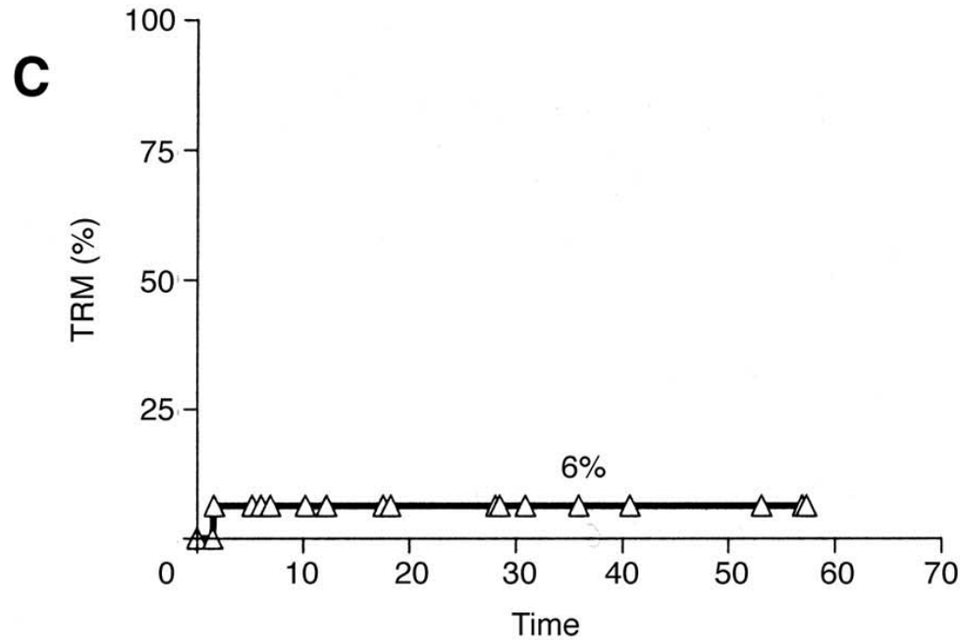
- For patients who have undergone a prior autologous HCT, have a PR with salvage therapy, or require several therapies at relapse to achieve a CR, favor allogeneic HCT

# Graft-Versus-Lymphoma Effect in Relapsed Peripheral T-Cell Non-Hodgkin's Lymphomas After Reduced-Intensity Conditioning Followed by Allogeneic Transplantation of Hematopoietic Cells

*Paolo Corradini, Anna Dodero, Francesco Zallio, Daniele Caracciolo, Marco Casini, Marco Bregni, Franco Narni, Francesca Patriarca, Mario Boccadoro, Fabio Benedetti, A. Rambaldi, Alessandro M. Gianni, and Corrado Tarella*

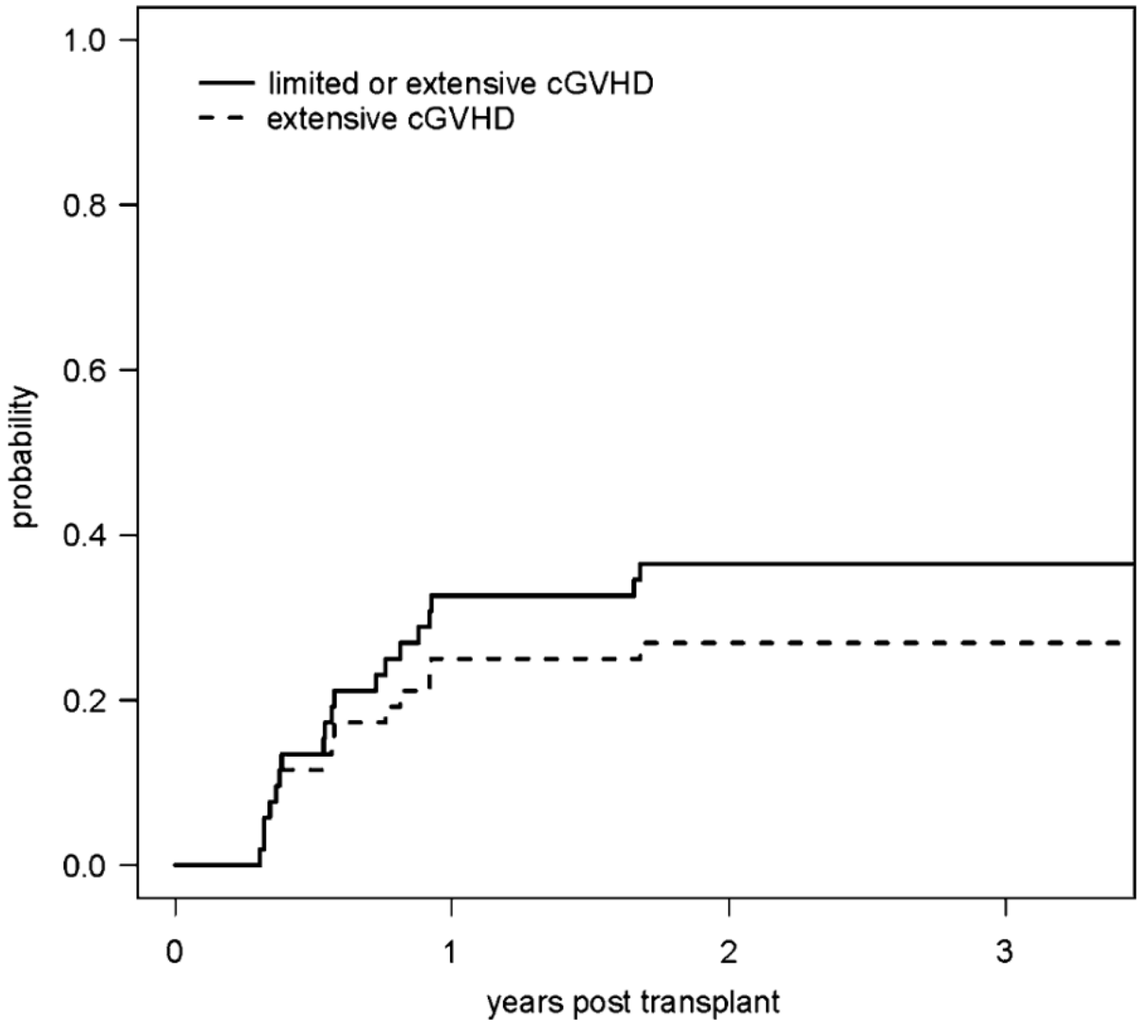


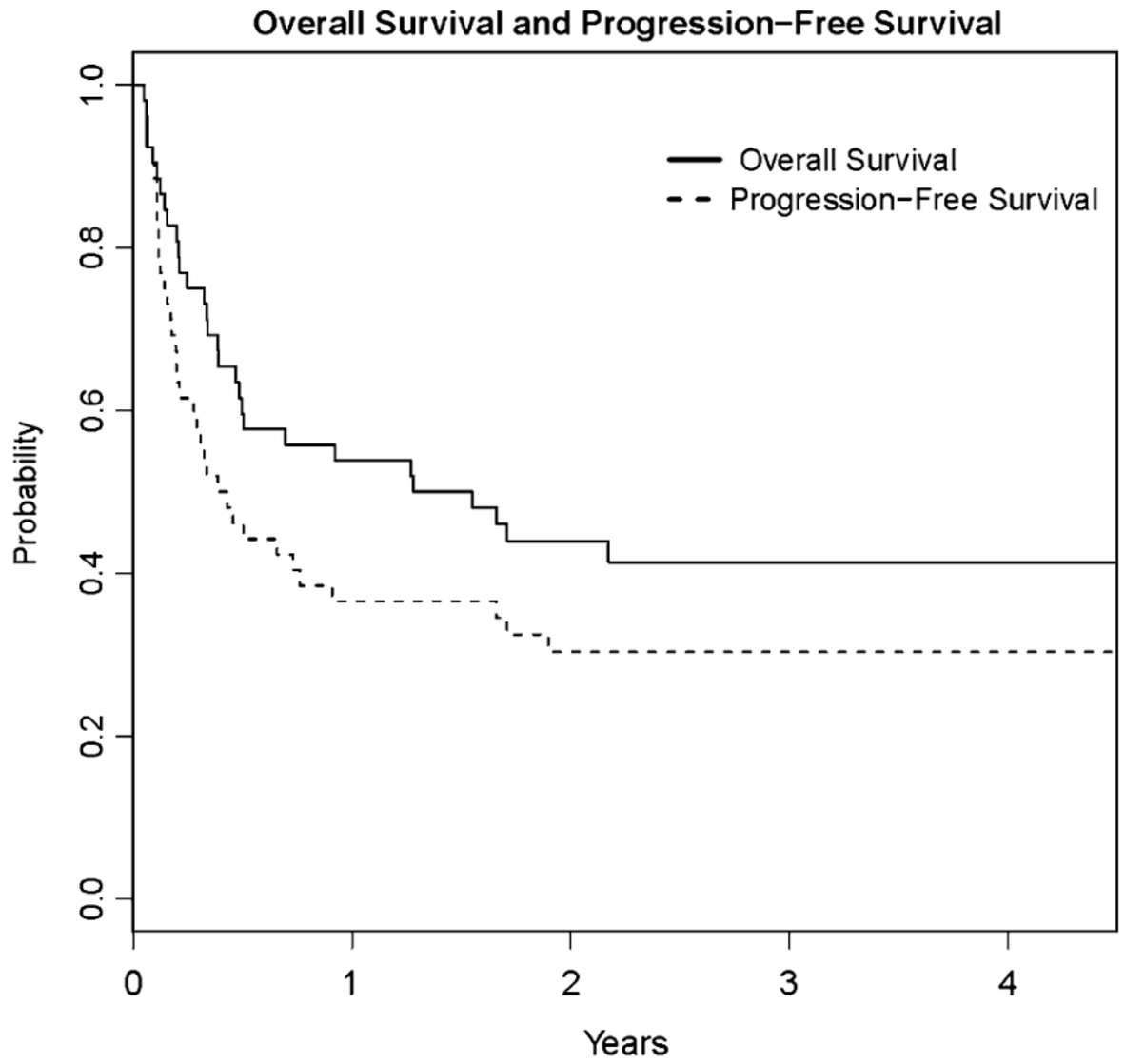



# A large single-center experience with allogeneic stem-cell transplantation for peripheral T-cell non-Hodgkin lymphoma and advanced mycosis fungoides/Sezary syndrome

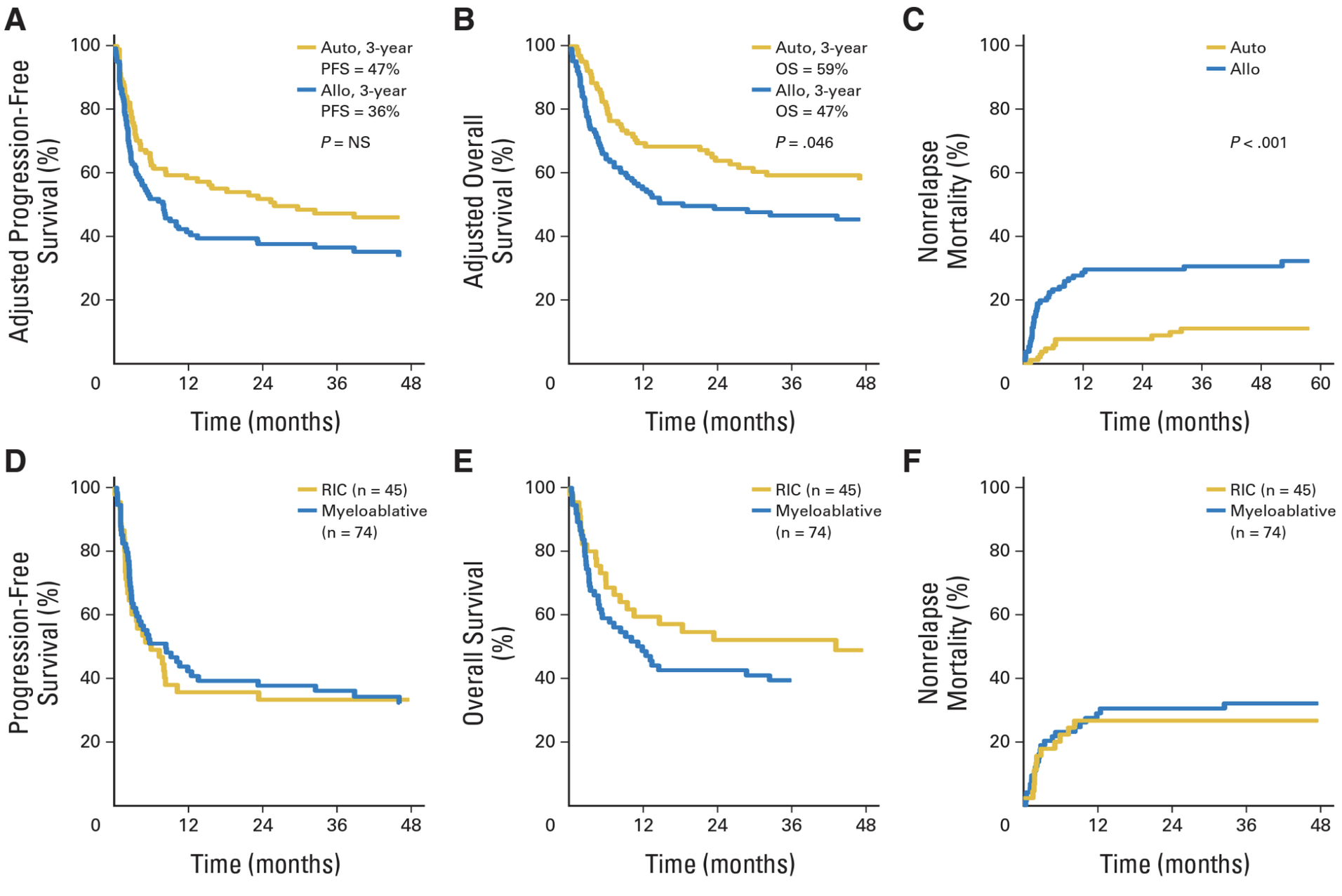
E. D. Jacobsen[1]*, H. T. Kim[2], V. T. Ho[1], C. S. Cutler[1], J. Koreth[1], D. C. Fisher[1], P. Armand[1], E. P. Alyea[1], A. S. Freedman[1], R. J. Soiffer[1] & J. H. Antin[1]

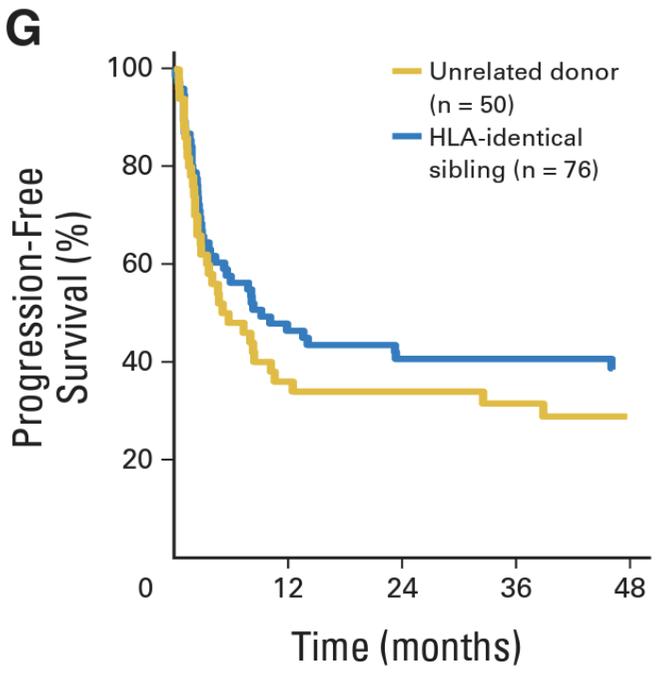


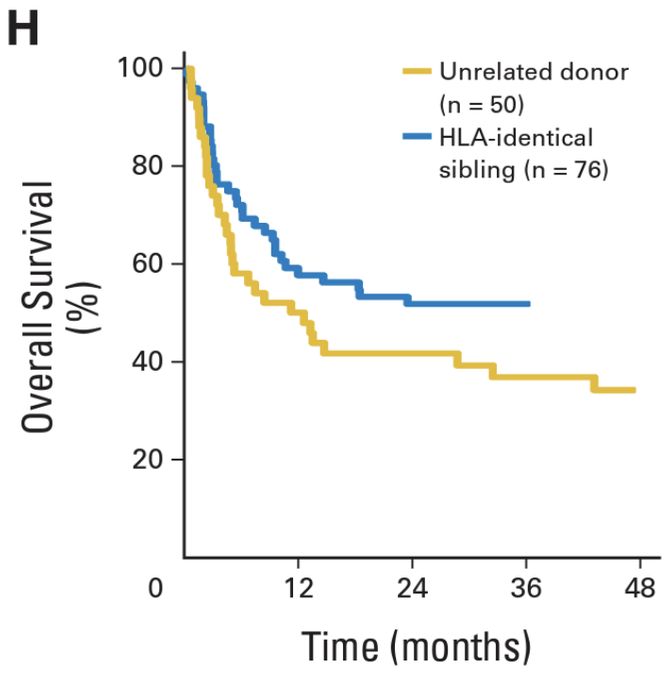



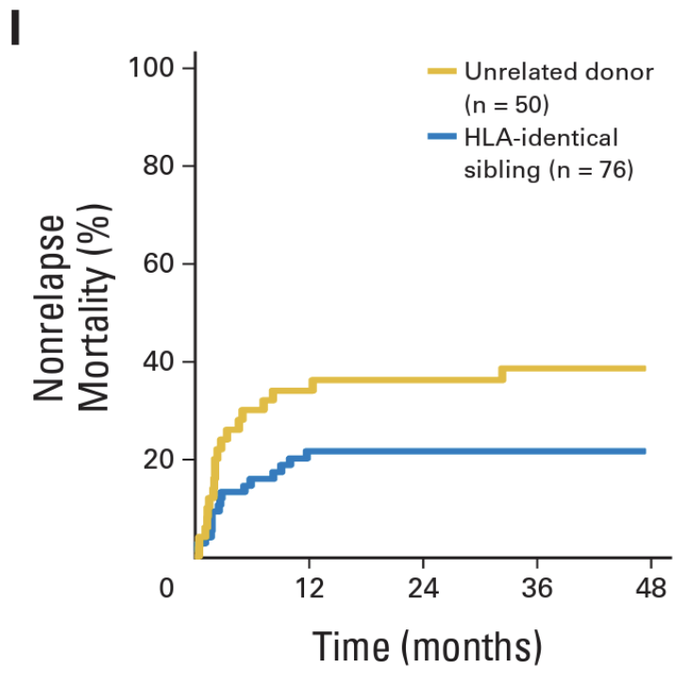
# Hematopoietic Cell Transplantation for Systemic Mature T-Cell Non-Hodgkin Lymphoma

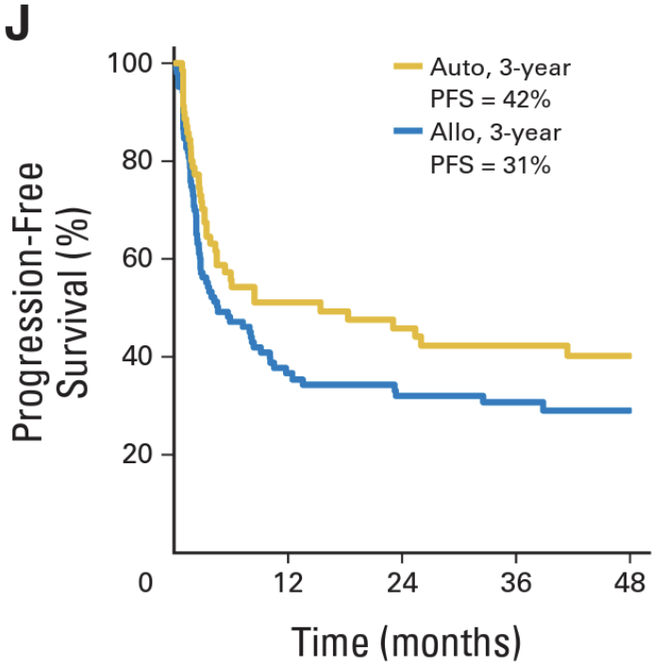
*Sonali M. Smith, Linda J. Burns, Koen van Besien, Jennifer LeRademacher, Wensheng He, Timothy S. Fenske, Ritsuro Suzuki, Jack W. Hsu, Harry C. Schouten, Gregory A. Hale, Leona A. Holmberg, Anna Sureda, Cesar O. Freytes, Richard Thomas Maziarz, David J. Inwards, Robert Peter Gale, Thomas G. Gross, Mitchell S. Cairo, Luciano J. Costa, Hillard M. Lazarus, Peter H. Wiernik, Dipnarine Maharaj, Ginna G. Laport, Silvia Montoto, and Parameswaran N. Hari*

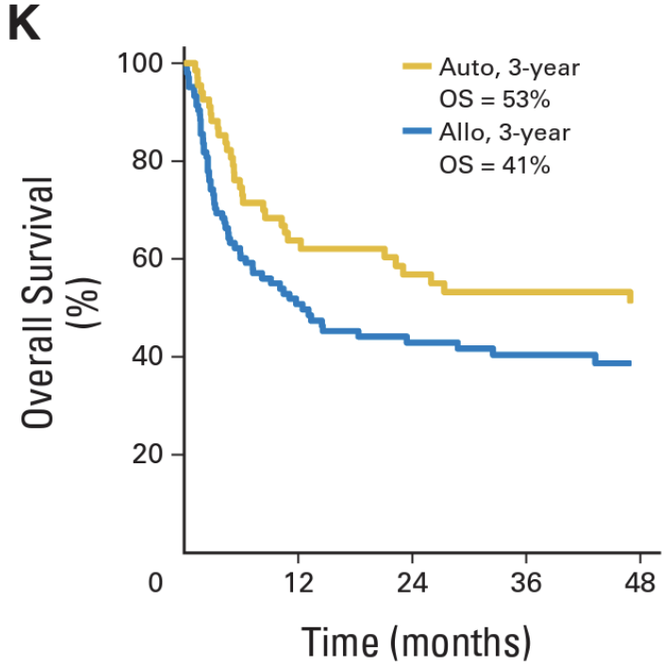



G
Progression-Free Survival (%)
100
80
60
40
20
0
12
24
36
48
Time (months)
Unrelated donor (n = 50)
HLA-identical sibling (n = 76)

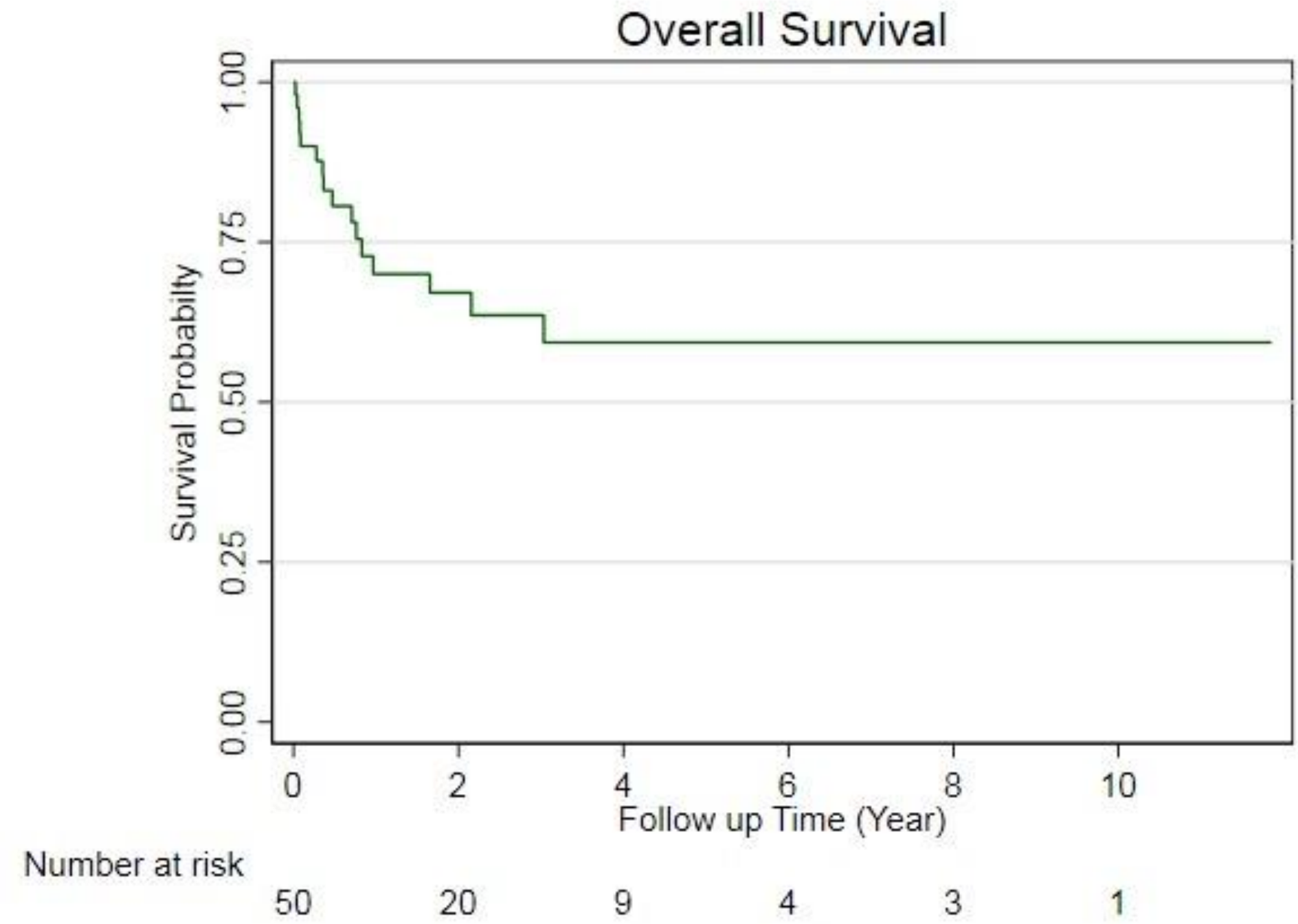

H
Overall Survival (%)
100
80
60
40
20
0
12
24
36
48
Time (months)
Unrelated donor (n = 50)
HLA-identical sibling (n = 76)


I
Nonrelapse Mortality (%)
100
80
60
40
20
0
12
24
36
48
Time (months)
Unrelated donor (n = 50)
HLA-identical sibling (n = 76)


J
Progression-Free Survival (%)
100
80
60
40
20
0
12
24
36
48
Time (months)
Auto, 3-year PFS = 42%
Allo, 3-year PFS = 31%


K
Overall Survival (%)
100
80
60
40
20
0
12
24
36
48
Time (months)
Auto, 3-year OS = 53%
Allo, 3-year OS = 41%

exclude CR


Overall Survival
Survival Probability
1.00
0.75
0.50
0.25
0.00
0
2
4
6
8
10
Follow up Time (Year)
Number at risk
50
20
9
4
3
1


Research Institute for
Oncology/Hematology
Stem Cell Transplantation
Emergency Department