Updated Analysis of Survival and Treatment Evolution in European Multiple Myeloma Patients (2012–2023) Across 7 Countries From the HONEUR Network

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HONEUR
Haematological Outcomes Network in Europe

Presented by JdlR Comos at the 67th American Society of Hematology (ASH) Annual Meeting; December 6–9, 2025; Orlando, FL, USA

Introduction

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- As treatment options for MM evolve, real-world data analyses can enhance the validity of evidence-based treatment decisions by supplementing clinical trial data[1-4]
- We assess how treatment patterns and clinical outcomes have evolved in patients with MM who initiated treatment between 2012 and 2023 within the HONEUR federated data network[5]
- To date, the HONEUR federated data network has gathered over 80,000 treated patients with MM from 27 partners
- Here, we present updated results from a previously published analysis at ASH 2024,[6] featuring extended follow-up and the inclusion of new countries
- At the time of the study, daratumumab was the sole anti-CD38 agent to hold European Medicines Agency approval for first-line therapy in both transplant-eligible and transplant-ineligible patients

HONEUR, Haematology Outcomes Network in Europe; MM, multiple myeloma.

1. National Comprehensive Cancer Network (NCCN). *Multiple Myeloma*. (Version 2.2026). 2. Palumbo A, Anderson K. *N Engl J Med* 2011;364:1046-60. 3. Chari A, et al. *Clin Lymphoma Myeloma Leuk* 2019;19:645-55. 4. Fonseca R, et al. *BMC Cancer* 2020;20:1087. 5. HONEUR. HONEUR Multiple Myeloma Registry Data. Accessed October 20, 2025. https://www.honeur.org/. 6. Rückert M, et al. *Blood* 2024;144:2388.

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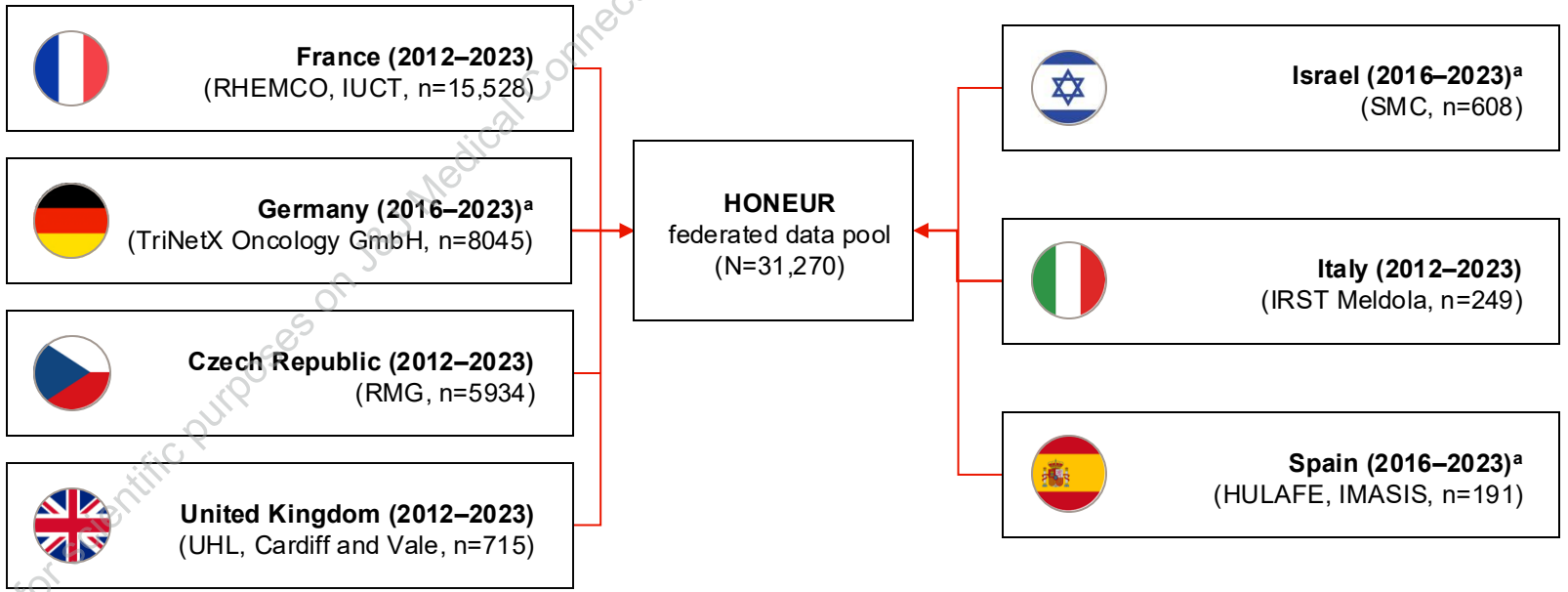
HONEUR: Study Population

- Data from patients newly diagnosed with MM starting treatment between 2012 and 2023 in 10 registries across 7 European countries were explored
- From 2012–2023, 31,270 patients with MM initiated frontline therapy:
  - 15,528 (50%) in France
  - 8045 (26%) in Germany
  - 5934 (19%) in Czech Republic
  - 715 (2%) in UK
  - 608 (2%) in Israel
  - 249 (1%) in Italy
  - 191 (1%) in Spain
- Median follow-up was 46.0 months
  - Germany (TrinetX, 40.7), Czech Republic (RMG, 67.8), France (IUCT, 42.2), UK (UHL, 42.5), UK (Cardiff, 25.5), Israel (SMC, 59.3), Spain (HULAFE, 44.3), Spain (IMASIS, 37.0), France (RHEMCO, 84.3), and Italy (Meldola, 58.7)



[a]Data collection began in 2016.
Cardiff and Vale, Cardiff and Vale University Health Board; HONEUR, Haematology Outcomes Network in Europe; HULAFE, Hospital Universitario La Fe; IMASIS, Institut Municipal d'Assistència Sanitària hospital information system; IUCT, Institut Universitaire du Cancer de Toulouse; MM, multiple myeloma; RHEMCO, Registre des Hémopathies Malignes de Côte d'Or; RMG, The Registry of Monoclonal Gammopathies; SMC, Sourasky Medical Center; UHL, University Hospitals Leicester.

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Frontline Treatment Regimens Evolved Over Time From PI- to Anti-CD38–Based Regimens

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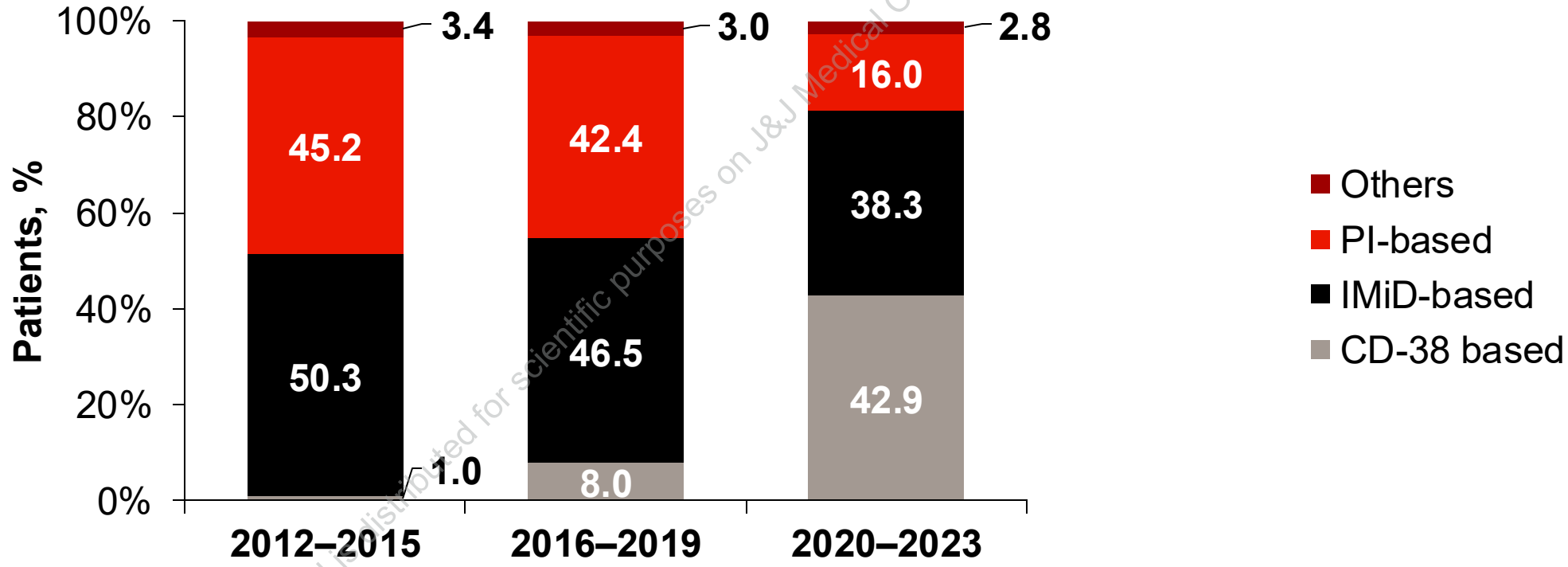
Utilization of frontline treatment regimens across periods



CD38-based is any treatment with CD38 (CD38, PI + CD38, IMiDs + CD38, PI + IMiDs + CD38). IMiD-based is IMiDs, PI + IMiDs. PI-based is only PI.
IMiD, immunomodulatory drug; PI, proteasome inhibitor.

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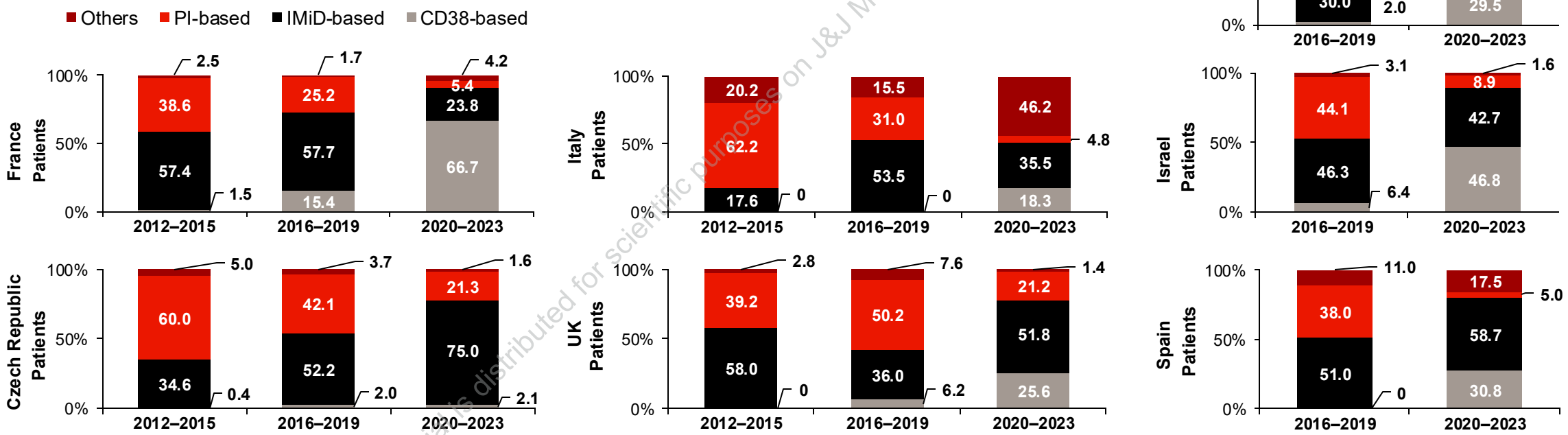
Treatment Patterns Across Countries

- Treatment patterns varied across countries; variations were related to when anti-CD38–based regimens became available for frontline treatment

Utilization of frontline treatment regimens over time by country



IMiD, immunomodulatory drug; PI, proteasome inhibitor.

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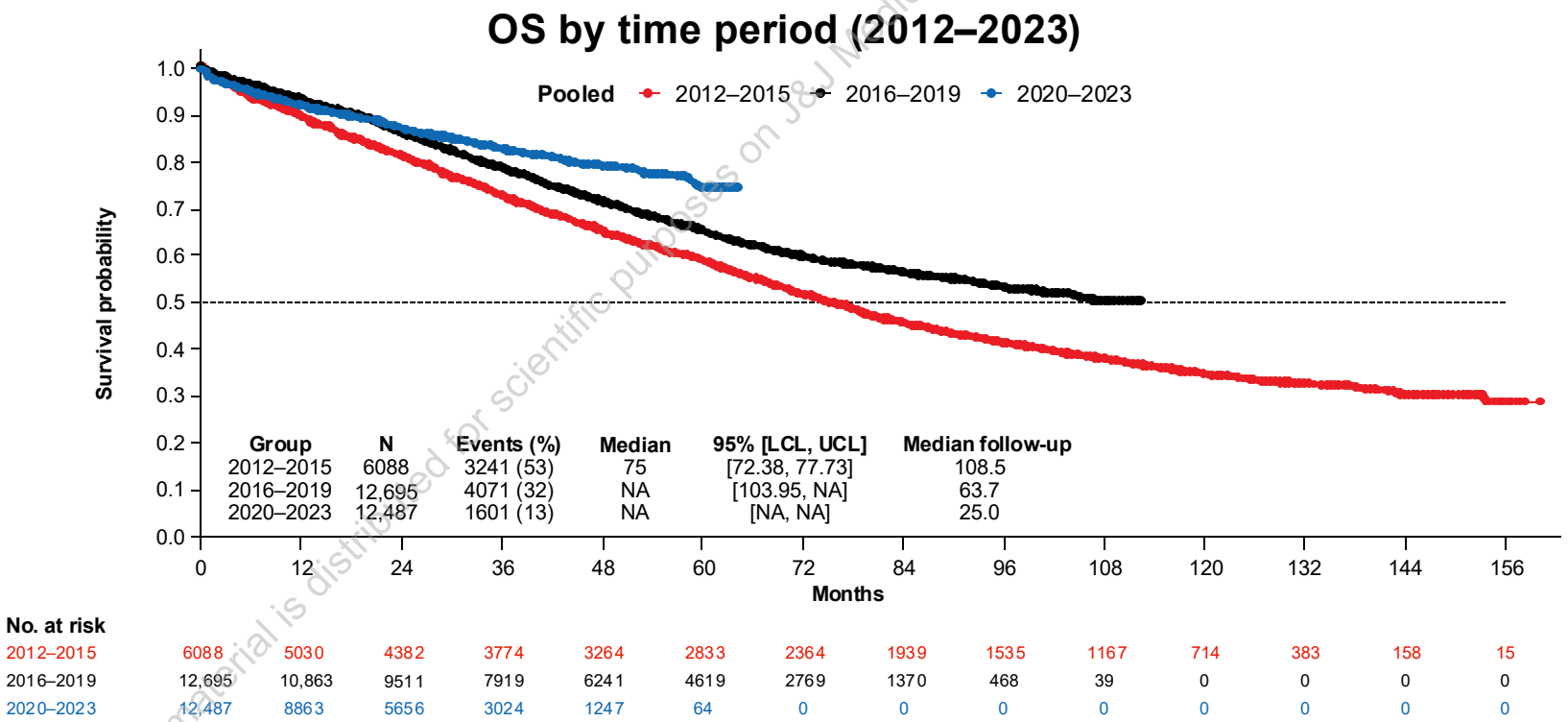
Survival Outcomes Improved Over Time

- Overall, median OS and frontline TTNT were 93.8 months and 30.6 months, respectively
  - Median OS improved from 75.0 months for the 2012–2015 cohort to not reached for the 2020–2023 cohort (HR, 0.63; *P*<0.001)
  - Median frontline TTNT was 29 months for the 2012–2015 cohort vs 35.2 months for the 2020–2023 cohort (HR, 0.63; *P*<0.001)



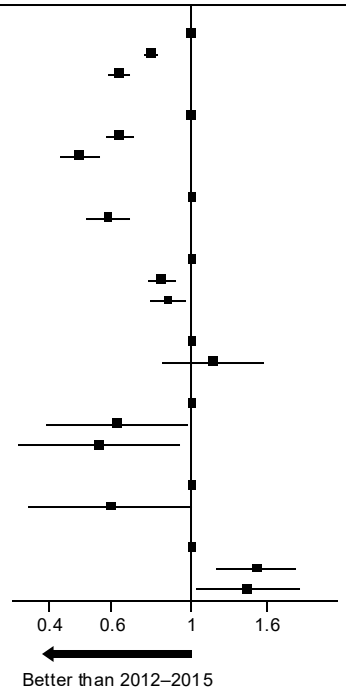
HR, hazard ratio; LCL, lower confidence limit; NA, not applicable; OS, overall survival; TTNT, time to next treatment; UCL, upper confidence limit.

Evolution of OS and TTNT Over Time in the Pooled Population and Per Country

- While some countries had limited or no data recorded in the first period (Germany, Israel and Spain), outcomes improved over time in France, Germany, Italy, and Spain
- Other countries exhibited no observed differentiation (Czech Republic and Israel) or a decline (UK) during 2020–2023

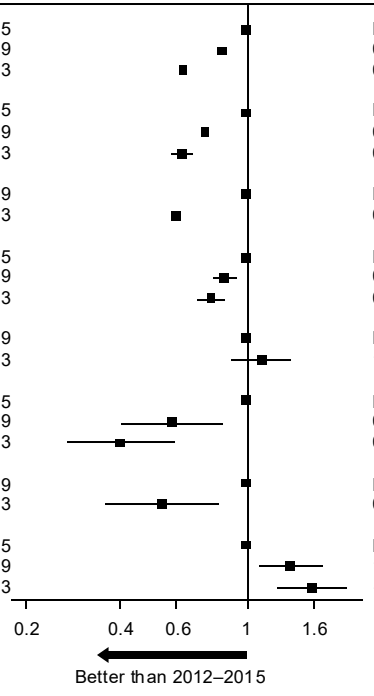
OS

Variables		Hazard ratio (95% CI)	*P* value	No. of observations (%)	No. of events (%)
Pooled	2012–2015	Reference		6088 (19.5)	3241 (53.2)
	2016–2019	0.77 (0.73, 0.81)	<0.001	12,695 (40.6)	4071 (32.1)
	2020–2023	0.63 (0.59, 0.67)	<0.001	12,487 (39.9)	1601 (12.8)
France	2012–2015	Reference		3998 (25.7)	1622 (40.6)
	2016–2019	0.63 (0.59, 0.68)	<0.001	5588 (36)	1173 (21)
	2020–2023	0.48 (0.42, 0.54)	<0.001	5942 (38.3)	436 (7.3)
Germany	2016–2019	Reference		4378 (54.4)	1386 (31.7)
	2020–2023	0.59 (0.52, 0.66)	<0.001	3667 (45.6)	340 (9.3)
Czech	2012–2015	Reference		1804 (30.4)	1397 (77.4)
	2016–2019	0.82 (0.76, 0.89)	<0.001	2018 (34)	1146 (56.8)
	2020–2023	0.86 (0.78, 0.95)	0.004	2112 (35.6)	641 (30.4)
Israel	2016–2019	Reference		315 (51.8)	133 (42.2)
	2020–2023	1.14 (0.83, 1.57)	0.407	293 (48.2)	70 (23.9)
Italy	2012–2015	Reference		74 (29.7)	59 (79.7)
	2016–2019	0.62 (0.40, 0.97)	0.034	71 (28.5)	32 (45.1)
	2020–2023	0.55 (0.34, 0.92)	0.021	104 (41.8)	24 (23.1)
Spain	2016–2019	Reference		100 (52.4)	66 (66)
	2020–2023	0.60 (0.36, 0.99)	0.045	91 (47.6)	22 (24.2)
UK	2012–2015	Reference		212 (29.7)	163 (76.9)
	2016–2019	1.51 (1.18, 1.92)	0.001	225 (31.5)	135 (60)
	2020–2023	1.43 (1.04, 1.96)	0.03	278 (38.9)	68 (24.5)



TTNT

Variables		Hazard ratio (95% CI)	*P* value	No. of observations (%)	No. of events (%)
Pooled	2012–2015	Reference		6088 (19.5)	4766 (78.3)
	2016–2019	0.83 (0.80, 0.86)	<0.001	12,695 (40.6)	8678 (68.4)
	2020–2023	0.63 (0.60, 0.66)	<0.001	12,487 (39.9)	4502 (36.1)
France	2012–2015	Reference		3998 (25.7)	2848 (71.2)
	2016–2019	0.74 (0.70, 0.78)	<0.001	5588 (36)	2968 (53.1)
	2020–2023	0.62 (0.58, 0.67)	<0.001	5942 (38.5)	1335 (22.5)
Germany	2016–2019	Reference		4378 (54.4)	3530 (80.6)
	2020–2023	0.60 (0.57, 0.64)	<0.001	3667 (45.6)	1734 (47.3)
Czech	2012–2015	Reference		1804 (30.4)	1663 (92.2)
	2016–2019	0.85 (0.79, 0.91)	<0.001	2018 (34)	1634 (81)
	2020–2023	0.77 (0.71, 0.83)	<0.001	2112 (35.6)	1041 (49.3)
Israel	2016–2019	Reference		315 (51.8)	237 (75.2)
	2020–2023	1.11 (0.91, 1.35)	0.311	293 (48.2)	180 (61.4)
Italy	2012–2015	Reference		74 (29.7)	73 (98.6)
	2016–2019	0.58 (0.40, 0.83)	0.003	71 (28.5)	51 (71.8)
	2020–2023	0.40 (0.27, 0.59)	<0.001	104 (41.8)	43 (41.3)
Spain	2016–2019	Reference		100 (52.4)	80 (80)
	2020–2023	0.54 (0.36, 0.81)	0.003	91 (47.6)	34 (37.4)
UK	2012–2015	Reference		212 (29.7)	182 (85.8)
	2016–2019	1.37 (1.10, 1.70)	0.004	225 (31.5)	178 (79.1)
	2020–2023	1.61 (1.26, 2.05)	<0.001	278 (38.9)	135 (48.6)



HRs in the pooled population were calculated using a univariable Cox model stratified by country to account for between-country differences. HR, hazard ratio; OS, overall survival; TTNT, time to next treatment.

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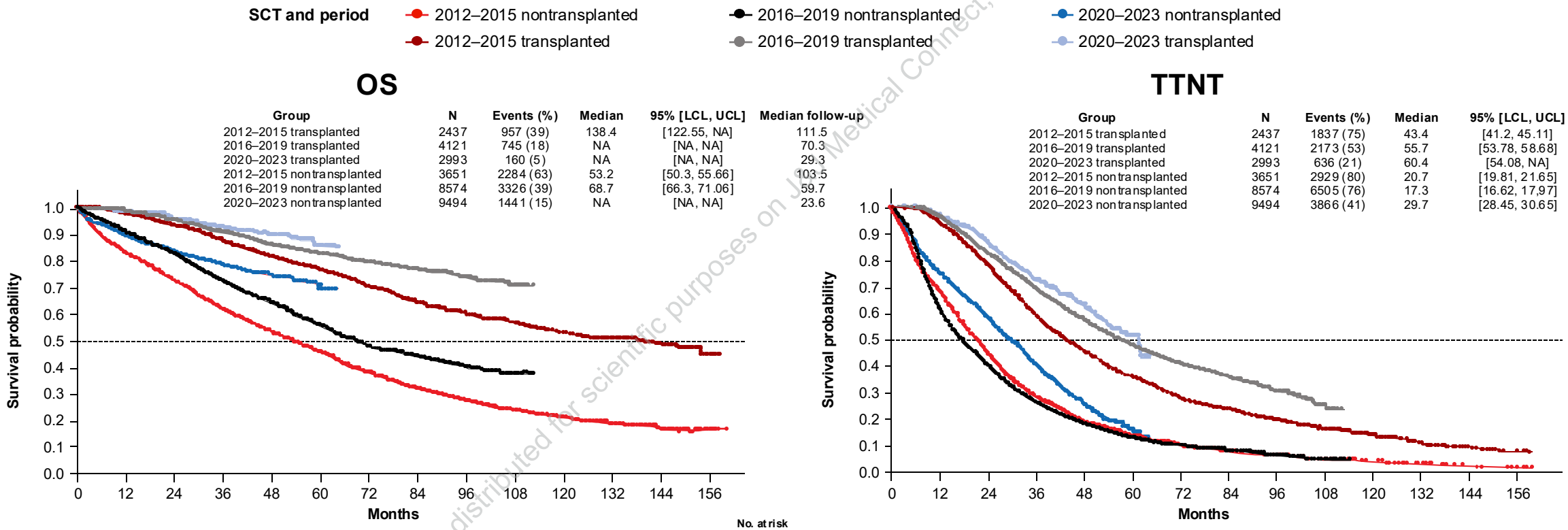
Outcomes by Transplant Status and Time Period

- Across time periods, OS and TTNT were longer in patients who received stem cell transplant vs those without transplant



Group	N	Events (%)	Median	95% [LCL, UCL]	Median follow-up
2012–2015 transplanted	2437	957 (39)	138.4	[122.55, NA]	111.5
2016–2019 transplanted	4121	745 (18)	NA	[NA, NA]	70.3
2020–2023 transplanted	2993	160 (5)	NA	[NA, NA]	29.3
2012–2015 nontransplanted	3651	2284 (63)	53.2	[50.3, 55.66]	103.5
2016–2019 nontransplanted	8574	3326 (39)	68.7	[66.3, 71.06]	59.7
2020–2023 nontransplanted	9494	1441 (15)	NA	[NA, NA]	23.6

Group	N	Events (%)	Median	95% [LCL, UCL]
2012–2015 transplanted	2437	1837 (75)	43.4	[41.2, 45.11]
2016–2019 transplanted	4121	2173 (53)	55.7	[53.78, 58.68]
2020–2023 transplanted	2993	636 (21)	60.4	[54.08, NA]
2012–2015 nontransplanted	3651	2929 (80)	20.7	[19.81, 21.65]
2016–2019 nontransplanted	8574	6505 (76)	17.3	[16.62, 17.97]
2020–2023 nontransplanted	9494	3866 (41)	29.7	[28.45, 30.65]

No. at risk

2012–2015 transplanted	2437	2314	2131	1921	1743	1594	1403	199	981	762	470	248	106	7
2016–2019 transplanted	4121	3958	3637	3241	2752	2256	1575	829	310	25	0	0	0	0
2020–2023 transplanted	2993	2636	1744	1014	442	33	0	0	0	0	0	0	0	0
2012–2015 nontransplanted	3651	2716	2251	1853	1521	1239	961	740	554	405	244	135	52	8
2016–2019 nontransplanted	8574	6905	5874	4678	3489	2363	1194	541	158	14	0	0	0	0
2020–2023 nontransplanted	9494	6227	3912	2010	805	31	0	0	0	0	0	0	0	0

No. at risk

2012–2015 transplanted	2437	2215	1760	1274	954	726	543	438	297	209	122	59	26	1
2016–2019 transplanted	4121	3824	3130	2437	1810	1302	822	362	111	5	0	0	0	0
2020–2023 transplanted	2993	2555	1525	774	289	16	0	0	0	0	0	0	0	0
2012–2015 nontransplanted	3651	2173	1351	824	522	369	254	182	110	81	51	22	9	1
2016–2019 nontransplanted	8574	4622	2800	1668	987	542	263	118	51	5	0	0	0	0
2020–2023 nontransplanted	9494	5267	2699	972	225	11	0	0	0	0	0	0	0	0

HR, hazard ratio; LCL, lower confidence limit; NA, not applicable; OS, overall survival; TTNT, time to next treatment; UCL, upper confidence limit.

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Conclusions

- Extended follow-up and additional countries consistently highlight an increased adoption of CD38-based regimens, along with improved TTNT and OS over time from the first (2012–2015) to the last (2020–2023) period
- Survival outcomes improved over time in France, Germany, Italy, and Spain, coinciding with increased uptake of CD38-based regimens, while other countries showed no difference (Czech Republic and Israel) or a decline (UK) during 2020–2023
- Median OS and TTNT were longer in the 30.5% of patients who received stem cell transplant

Real-world data indicate that survival rates for patients with MM have improved over time, especially in the latest period, coinciding with the approval and availability of daratumumab in frontline treatment

MM, multiple myeloma; OS, overall survival; TTNT, time to next treatment.

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