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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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Key Takeaway

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

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

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Poster

https://www.congresshub.com/ASH2025/Oncology/Daratumumab/Comos

The QR code is intended to provide scientific information for individual reference, and the information should not be altered or reproduced in any way.

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Disclosures

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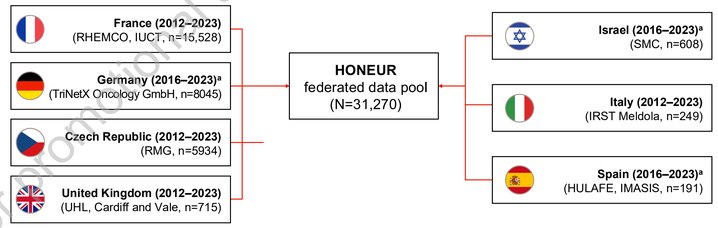
Introduction

- As treatment options for multiple myeloma (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 Haematology Outcomes Network in Europe (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

Methods

- Data from patients newly diagnosed with MM starting treatment between 2012 and 2023 in 10 registries across 7 European countries were explored (**Figure 1**)
- Locally stored patient-level data were uniformly analyzed, and site-specific aggregate results were pooled at a central level, guaranteeing patient anonymity, using the HONEUR federated data network
- Patient characteristics, treatment patterns, and survival outcomes were assessed for the overall (pooled) population and by time-defined cohorts based on the year of frontline treatment initiation: 2012–2015, 2016–2019, and 2020–2023
  - Overall survival (OS): time from start of frontline treatment to death or last follow-up (censored if alive)
  - Time to next treatment (TTNT), used as a proxy for progression free-survival: time from start of frontline treatment to initiation of the next line of therapy or death
- Survival outcomes were analyzed using the Kaplan-Meier approach to estimate survival curves; proportional hazards regression was used to estimate hazard ratios (HRs) (95% CI)
- HRs for each period were estimated with a univariable Cox model, with the pooled analysis stratified by country to account for between-country differences; country-specific HRs were estimated separately within each country
- A subanalysis was conducted in patients who received stem cell transplant (SCT) vs patients who did not

Figure 1: Study sites in analysis



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

Results

Study population

- From 2012–2023, 31,270 patients with MM initiated frontline therapy in 10 European MM registries; baseline characteristics are shown in the **Table**
  - 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, and 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)

Table: Baseline characteristics in pooled population

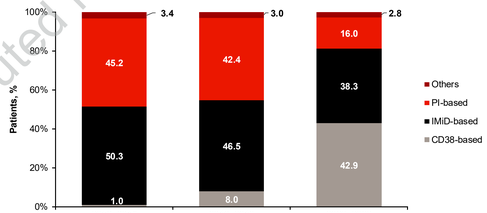
Characteristics, n (%)		Overall (n=31,270)	2012–2015 (n=6088)	2016–2019 (n=12,695)	2020–2023 (n=12,487)
Male		17,560 (56.2)	3321 (54.5)	7180 (56.6)	7059 (56.5)
Age, years	≤64	10,892 (34.8)	2770 (45.5)	4310 (34)	3812 (30.5)
	65–69	5906 (18.9)	1153 (18.9)	2736 (21.6)	2017 (16.2)
	70–74	6031 (19.3)	854 (14)	2585 (20.4)	2592 (20.8)
	75–79	4422 (14.1)	673 (11.1)	1596 (12.6)	2153 (17.2)
	≥80	4019 (12.9)	638 (10.5)	1468 (11.6)	1913 (15.3)
ECOG PS	0–1	9194 (29.4)	1251 (20.5)	4066 (32.1)	3877 (31)
	≥2	4708 (15)	521 (8.5)	2240 (17.6)	1947 (15.6)
	Unavailable	17,368 (55.5)	4316 (70.9)	6389 (50.3)	6663 (53.4)
ISS stage	I	5732 (18.3)	1080 (17.7)	2524 (19.9)	2128 (17)
	II	9320 (29.8)	1728 (28.4)	3681 (29)	3911 (31.3)
	III	7817 (25)	1425 (23.4)	3103 (24.4)	3289 (26.3)
	Unavailable	8401 (26.9)	1855 (30.5)	3387 (26.7)	3159 (25.3)
M protein	IgG	15,325 (49)	2572 (42.2)	6596 (52)	6157 (49.3)
	IgA	5310 (17)	911 (15)	2289 (18)	2110 (16.9)
	Other	1782 (5.7)	447 (7.3)	637 (5.0)	698 (5.6)
	Unavailable	8853 (28.3)	2158 (35.4)	3173 (25)	3522 (28.2)
Received stem cell transplant	No	21,719 (69.5)	3651 (60)	8574 (67.5)	9494 (76)
	Yes	9551 (30.5)	2437 (40)	4121 (32.5)	2993 (24)

ECOG PS, Eastern Cooperative Oncology Group performance status; Ig, immunoglobulin; ISS, International Staging System.

Treatment patterns

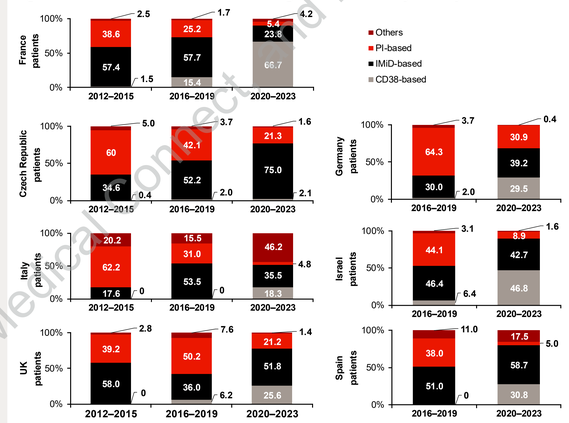
- Frontline treatment regimens evolved over time from proteasome inhibitor (PI)- to anti-CD38–based regimens (**Figure 2**)
- Treatment patterns varied across countries; variations were related to when anti-CD38–based regimens became available for frontline treatment (**Figure 3**)
- The percentage of CD38-based regimens in the last period was highest in France (67%), followed by Israel (47%), Spain (31%), Germany (30%), UK (26%), Italy (18%), and Czech Republic (2%)

Figure 2: 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.

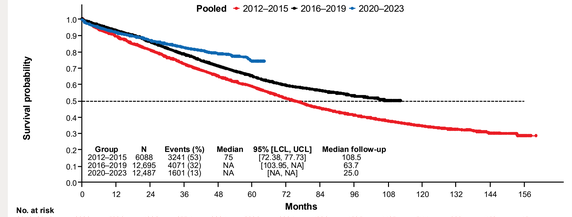
Figure 3: Utilization of frontline treatment regimens over time by country[a,b]



Survival outcomes

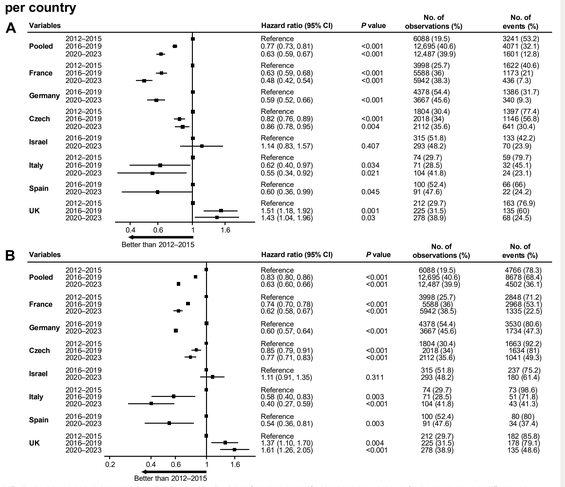
- Overall, median OS and frontline TTNT were 93.8 months and 30.6 months, respectively
- Survival outcomes showed a statistically significant improvement over time (**Figures 4** and **5**)
  - Median OS improved from 75.0 months for the 2012–2015 cohort to not reached for the 2020–2023 cohort (HR, 0.63; *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)
- Evolution of OS and TTNT varied across countries, with significant changes over time (**Figure 5**)
  - 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, coinciding with increased uptake of CD38-based regimens
  - Other countries exhibited no observed differentiation (Czech Republic and Israel) or a decline (UK) during 2020–2023
  - These trends may be linked to the COVID-19 pandemic's effects, differing trends in SCT recommendations, availability of clinical trials (Myeloma XI), and slower adoption of novel anti-CD38 regimens
  - These results will be updated to assess the impact of extended observation and the most recent approvals of CD38 quadruplet regimens in first-line therapy

Figure 4: OS by time period (2012–2023)



LCL, lower confidence limit; NA, not applicable; UCL, upper confidence limit.

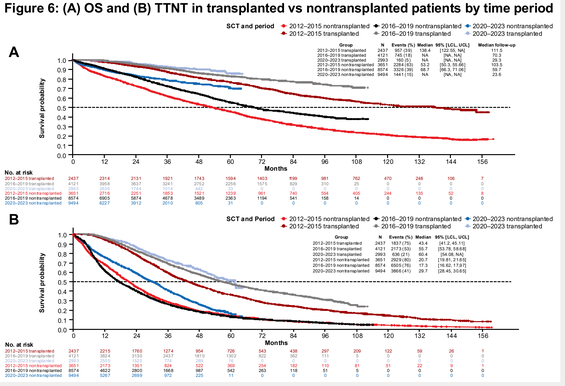
Figure 5: Evolution of HR for (A) OS and (B) TTNT over time in the pooled population and per country



HRs in the pooled population were calculated using a univariable Cox model stratified by country to account for between-country differences.

- Across time periods, OS and TTNT were longer in patients who received SCT vs those without transplant (**Figure 6**)
  - Patients receiving SCT (30.5% of all patients) had longer median OS and TTNT across time periods (not reached and 52.2 months) than those who did not receive SCT (68.1 and 22.4 months)
  - OS improvements were seen in the last period vs the first period in both transplanted (HR, 0.44; *P*<0.001) and nontransplanted patients (HR, 0.65; *P*<0.001)
  - Similarly, TTNT in the last period improved for both transplanted (HR, 0.56; *P*<0.001) and nontransplanted patients (HR, 0.63; *P*<0.001) vs the first period

Figure 6: (A) OS and (B) TTNT in transplanted vs nontransplanted patients by time period



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HONEUR Haematological Outcomes Network in Europe

Multiple Myeloma

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