

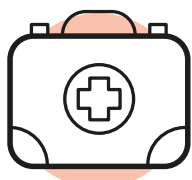
Healthcare Utilisation of Patients with Eosinophilic Granulomatosis with Polyangiitis (EGPA): A European Perspective

Poster No. EE607

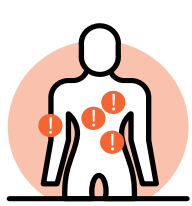
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Introduction



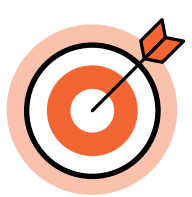
EGPA is a rare disease characterised by the combination of vasculitis, elevated blood eosinophil count ≥ 1000 cells/ μ L and asthma.^{1–3}



EGPA manifestations can affect a variety of organ systems and can be serious and even life threatening if left untreated.^{1,4} Treatment relies heavily on the use of OCS in combination with immunosuppressive treatments; however, serious adverse effects are associated with long-term use.^{5,6}



A US claims database study found greater HCRU for patients with EGPA compared with patients with asthma.⁷ There have been few European studies of EGPA-related HCRU and to our knowledge, comparisons between European countries have not previously been studied.⁸



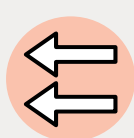
This chart review study describes real-world the EGPA-related HCRU across 5 countries, using the largest multi-country European cohort of patients with EGPA.

Methods

Study design (GSK ID: 214661)



Real world



Retrospective



Chart review



Patient eligibility criteria

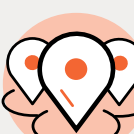
≥ 12 years of age
Confirmed EGPA diagnosis
 ≥ 1 year of follow-up data from index*



N=407



Chart review conducted by 204 physicians† in 5 European countries: France, Germany, Italy, Spain, UK



Index date

First physician encounter after or at EGPA diagnosis:



Jan 2015

to



Dec 2019

EGPA diagnosis date

EGPA diagnosis date

End of follow-up‡

End of follow-up‡

Patient history§

Patient history§

Follow-up

Follow-up



Patient demographics



Disease characteristics



Comorbidities



Hospitalisations, ED visits, outpatient visits



Length of hospital stay



Tests related to the monitoring of clinical conditions

All outcomes assessed overall and by country



*Except where follow-up ended due to death; †recruited from targeted specialties of rheumatology (44%), pulmonology (37%), allergy (13%), and immunology (6%); ‡earliest of death, loss to follow-up or date of chart abstraction; §as available in the patient's chart

Results

Table 1. Patient demographics and clinical characteristics

	Overall (N=407)	France (N=81)	Germany (N=80)	Italy (N=80)	Spain (N=85)	UK (N=81)
Male, n (%)	231 (56.8)	51 (63.0)	44 (55.0)	47 (58.8)	42 (49.4)	47 (58.0)
Age at EGPA diagnosis, median (IQR), years	45 (33, 54)	49 (37, 57)	45 (30, 56)	40 (28, 50)	45 (35, 53)	45 (37, 53)
≥ 18 years of age, n (%)	383 (94.1)	78 (96.3)	73 (91.3)	74 (92.5)	78 (91.8)	80 (98.8)
Disease duration, median (IQR), years*	2.5 (1.8, 4.1)	2.1 (1.8, 2.9)	2.2 (1.7, 3.1)	3.7 (2.0, 5.9)	2.8 (1.9, 4.4)	2.3 (1.7, 3.5)
Length of follow-up, median (IQR), years	2.2 (1.7, 3.5)	2.0 (1.6, 2.6)	2.2 (1.6, 2.9)	2.9 (1.8, 4.2)	2.3 (1.7, 3.8)	2.1 (1.6, 3.3)
Proportion of patients with asthma, n (%)†	299 (73.5)	66 (81.5)	45 (56.3)	60 (75.0)	64 (75.3)	64 (79.0)
Patients with an asthma diagnosis prior to EGPA diagnosis, n (%)‡	160 (78.0)	39 (78.0)	24 (100.0)	36 (80.0)	33 (64.7)	28 (80.0)
Time from asthma diagnosis to EGPA diagnosis, median (IQR), years	1.8 (0.2, 5.6)	1.2 (0.3, 3.2)	4.4 (2.2, 7.3)	0.1 (0.0, 2.0)	2.9 (0.5, 8.1)	3.6 (0.9, 9.2)
Blood eosinophil count, n (%)	364 (89.4)	77 (95.1)	73 (91.3)	66 (82.5)	75 (88.2)	73 (90.1)
Median BEC (IQR), cells/ μ L‡	1500 (600, 3300)	1500 (875, 2800)	2800 (1200, 4500)	1800 (900, 3000)	1400 (600, 4000)	800 (45, 3200)
Comorbidities and associated conditions, n (%)						
Vasculitis	197 (48.4)	37 (45.7)	35 (43.8)	44 (55.0)	42 (49.4)	39 (48.1)
Hypertension	163 (40.0)	28 (34.6)	32 (40.0)	41 (51.3)	31 (36.5)	31 (38.3)
Anxiety or depression	140 (34.4)	37 (45.7)	16 (20.0)	40 (50.0)	23 (27.1)	24 (29.6)
Lower respiratory disease‡	77 (18.9)	24 (29.6)	8 (10.0)	12 (15.0)	19 (22.4)	14 (17.3)
Osteoporosis	72 (17.7)	8 (9.9)	9 (11.3)	22 (27.5)	21 (24.7)	12 (14.8)
Glomerulonephritis	69 (17.0)	17 (21.0)	15 (18.8)	15 (18.8)	9 (10.6)	13 (16.0)
Obesity	68 (16.7)	8 (9.9)	15 (18.8)	11 (13.8)	21 (24.7)	13 (16.0)
Diabetes	35 (8.6)	4 (4.9)	8 (10.0)	4 (5.0)	11 (12.9)	8 (9.9)
Rheumatoid arthritis	20 (4.9)	10 (12.3)	2 (2.5)	3 (3.8)	4 (4.7)	1 (1.2)
Liver disease	11 (2.7)	0 (0.0)	3 (3.8)	0 (0.0)	6 (7.1)	2 (2.5)
Cancer (any)	8 (2.0)	2 (2.5)	0 (0.0)	1 (1.3)	3 (3.5)	2 (2.5)

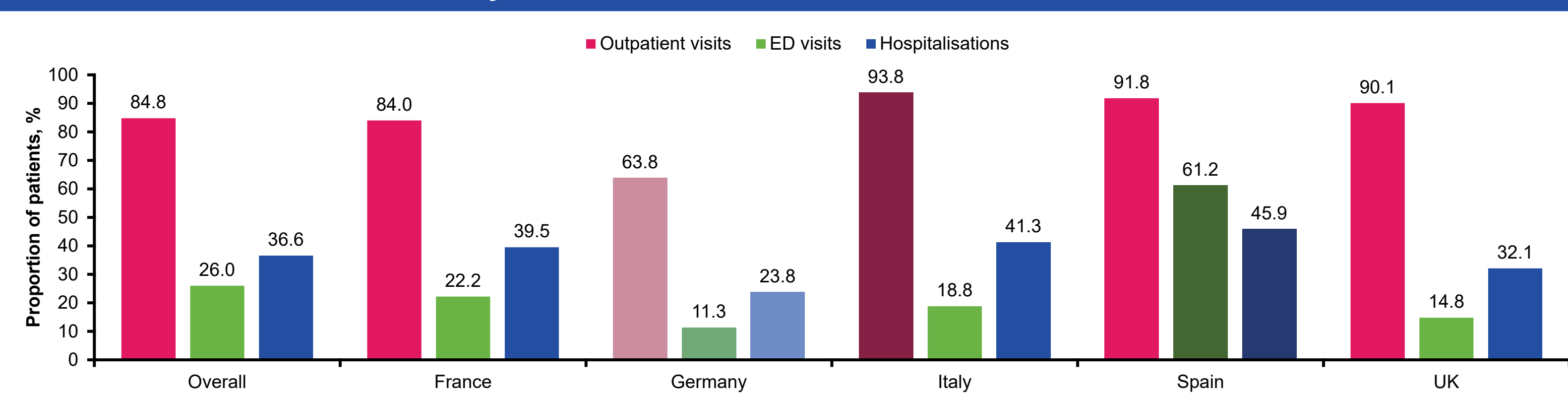
Highest and lowest values across the countries are indicated by the green and red shading, respectively. *Disease duration was calculated from diagnosis date to end of follow-up; †asthma assessed from birth to end of follow-up; ‡ calculated from the total number of patients who had a reported diagnosis date for asthma: overall (n=205), France (n=50), Germany (n=24), Italy (n=45), Spain (n=51), and UK (n=35); ‡physicians reported the most recent value between diagnosis and index; §other than asthma and COPD



Conclusions

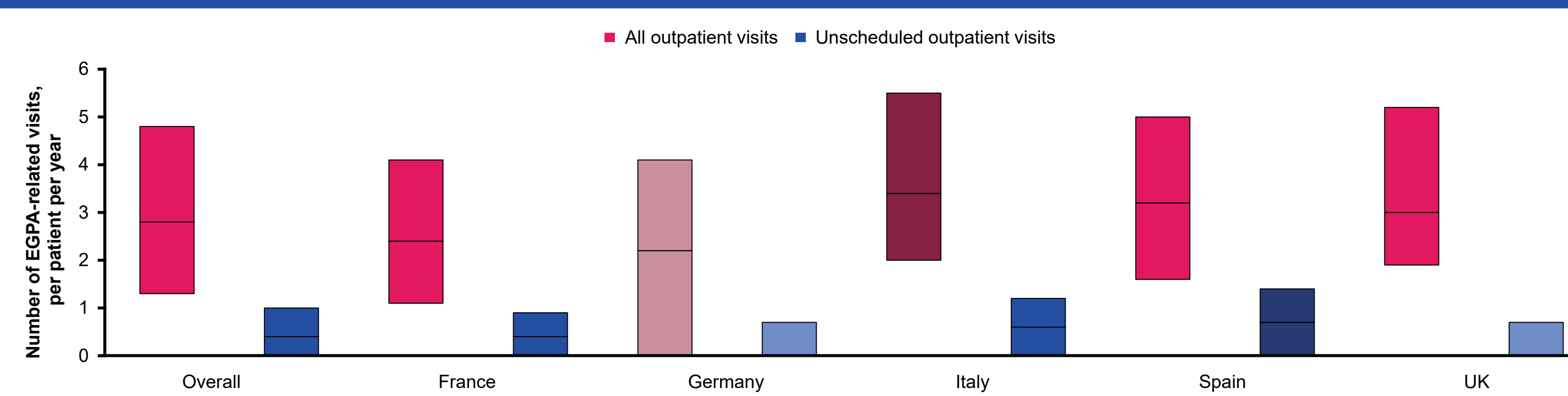
- Together, results highlight a considerable burden of HCRU for patients with EGPA as well as variation across the 5 European countries studied.
- Overall, 85% of patients required EGPA-related outpatient visits; this was lowest in Germany and highest in Italy.
 - Despite most patients having multiple outpatient visits per year, 26% required ED visits and 37% required hospitalisation overall.
 - The proportion of patients who required EGPA-related ED visits and hospitalisations as well as the mean length of hospital stay were all the lowest in Germany and highest in Spain.
- The delivery of EGPA-related medical procedures and the monitoring of clinical conditions were applied inconsistently across countries.
- Country variations in EGPA-related HCRU suggests differences in disease management, potentially due to differences in healthcare systems between these countries.
- Future studies are needed to understand the reasons for the variation in HCRU between these European countries to identify strategies to reduce the burden of disease for patients with EGPA.

Figure 1. Overall, 84.8% of patients had outpatient visits, 36.6% required hospitalisation and 26.0% had ED visits, all of which were lowest in Germany



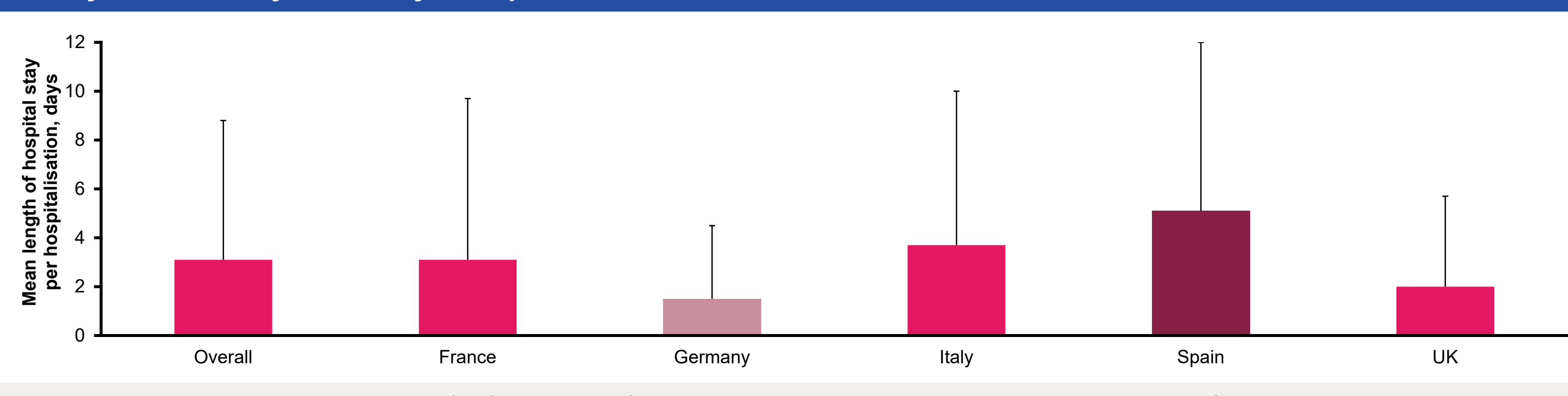
Data were analysed between the index date and the end of the follow-up; median follow-up time per country varied as shown in Table 1. Darker and lighter tones represent highest and lowest reported values in each category

Figure 2. In all countries, the median number of EGPA-related outpatient visits per year was >2 but unscheduled visits were less frequent



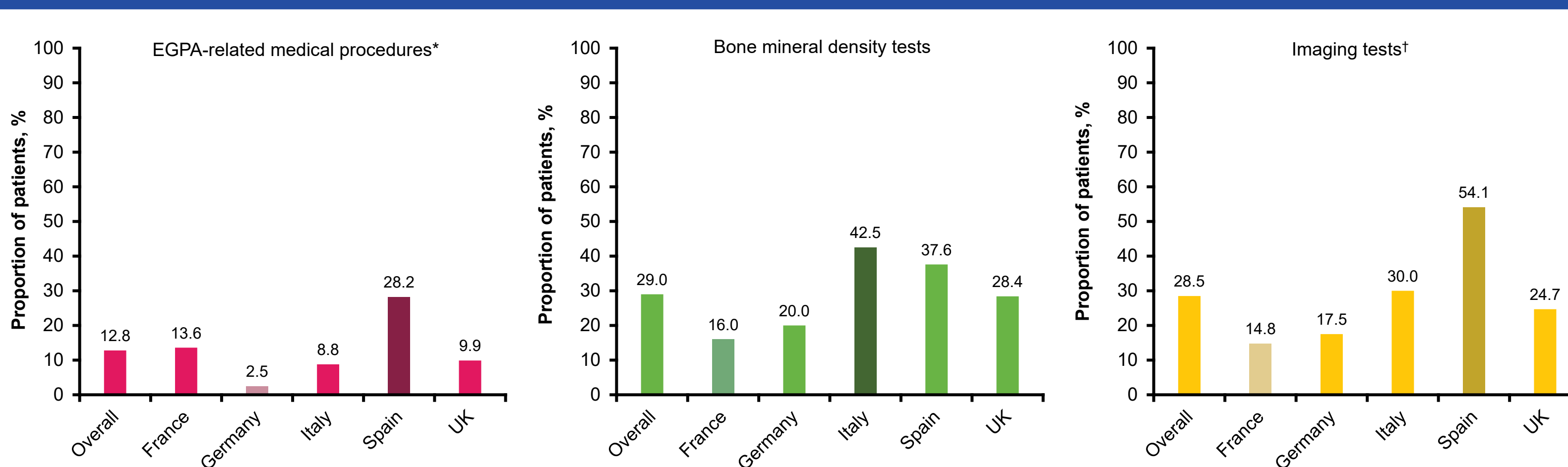
Data were analysed between index and the end of follow-up; EGPA-related visits were reported on a per patient per year basis to account for differences in the length of follow-up. Box plots represent median and IQR. Darker and lighter tones represent highest and lowest reported values in each category

Figure 3. The mean length of EGPA-related hospital stays per hospitalisation was 3.1 days which varied from 1.5 days in Germany to 5.1 days in Spain



Data were analysed between the index date and the end of the follow-up; median follow-up time per country varied as shown in Table 1. Error bars represent +SD. Darker and lighter tones represent highest and lowest reported values in each category

Figure 4. Tests and procedures related to the monitoring of clinical conditions included almost a third of patients having bone mineral density and imaging tests while EGPA-related medical procedures were less frequent



- Overall, 1.2% of patients required cataract removal during follow-up (France: 2.5%; Germany: 0.0%; Italy: 2.5%; Spain: 1.2%; UK: 0.0%)

Data were analysed between the index date and the end of the follow-up; median follow-up time per country varied as shown in Table 1. Darker and lighter tones represent highest and lowest reported values in each category. *e.g. plasma exchange; †e.g. CT scans, chest radiographs

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Abbreviations

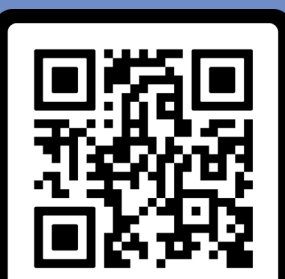
BEC, blood eosinophil count; COPD, chronic obstructive pulmonary disease; CT, computed tomography; EGPA, eosinophilic granulomatosis with polyangiitis; ED, emergency department; HCRU, healthcare resource utilisation; IQR, interquartile range; OCS, oral corticosteroid; SD, standard deviation; UK, United Kingdom; US, United States

Disclosures

- This study was funded by GSK (Study 214661).
- On behalf of all authors, an audio recording of this poster was prepared by Rupert W. Jakes, who did not receive any payment for this recording.
- RWJ, JH, LB, RA-C are employees of GSK and hold stocks/shares in GSK. NK was an employee of GSK at the time of the study and holds stocks/shares in GSK. LH, AK and MSD are employees of the Analysis Group, Inc., which received funding from GSK to conduct the study. SD was an employee of Analysis Group, Inc., at the time of the study, which received funding from GSK to conduct the study.
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