Five-Year Safety of Ofatumumab in People Living With Relapsing Multiple Sclerosis

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Background and Objective

- **Ofatumumab,** a fully human anti-CD20 monoclonal antibody with a **20-mg subcutaneous** monthly dosing regimen, is approved for treating **relapsing multiple sclerosis (RMS) in adults**[1a]
- In the Phase 3 ASCLEPIOS I/II trials, ofatumumab treatment up to 30 months had a **favorable safety profile** and was generally well tolerated in RMS patients[2]
- **Ofatumumab treatment up to 4 years**[b] was well tolerated, with **no new safety risks identified**[3,4] and efficacy sustained over time[5]
- Longer-term safety and efficacy assessments are important to further understand ofatumumab's benefit–risk profile in RMS patients

Objective

To assess the longer-term safety and tolerability of ofatumumab treatment for up to 5 years (data cut-off: 25-Sep-2022) in patients with RMS

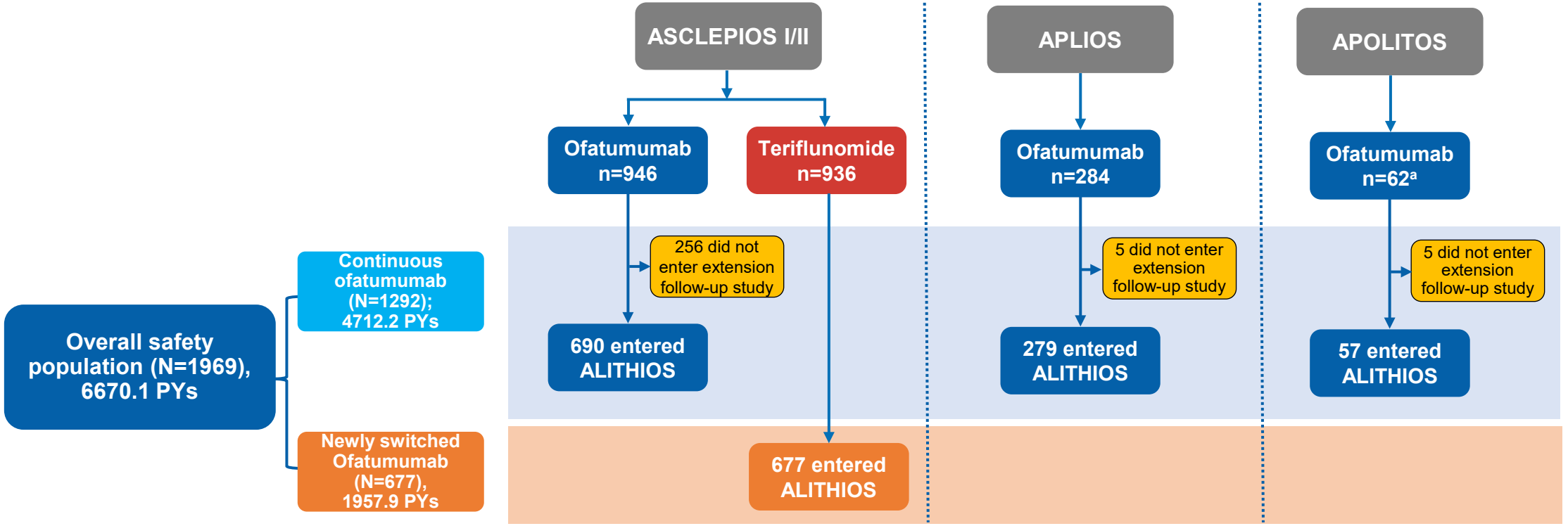
[a]Kesimpta is indicated for the treatment of adult patients with relapsing forms of multiple sclerosis (RMS) with active disease defined by clinical or imaging features[6]; [b]data cut-off: 25-Sep-2021

CD, cluster of differentiation; Ig, immunoglobulin; LLN, lower limit of normal; RMS, relapsing multiple sclerosis

1. KESIMPTA® (ofatumumab) Prescribing Information. https://www.novartis.us/sites/www.novartis.us/files/kesimpta.pdf (accessed February 17, 2022). 2. Hauser SL, et al. *N Engl J Med* 2020;383:546−57. 3. Hauser SL, et al. *Mult Scler*. 2022; 28 (10): 1576-1590. 4. Sacca F, et al. Oral presentation presented at EAN 2022; 5. Kappos L, et al; Poster presented at EAN 2022. 6. Kesimpta (ofatumumab). Summary of product characteristics. https://www.ema.europa.eu/en/documents/product-information/kesimpta-epar-product-information_en.pdf Accessed March 8, 2023.

Patient Population

Overall safety population (N=1969), 6670.1 PYs



- In the overall safety population, 86.5% patients (1703/1969) completed the core studies and entered ALITHIOS
- Of these, 83.1% patients (1416/1703) were still receiving ofatumumab treatment at the time of data cut-off (25-Sep-2022)

[a]patients were either randomized to or switched to ofatumumab during the core study; PY, patient-years.

Baseline Demographics and Disease Characteristics

	Continuous ofatumumab (N=1292)	Newly Switched Ofatumumab (N=677)		Overall ofatumumab (N=1969)
		Baseline from core study	Baseline from extension study	
Age, years (mean±SD)	38.0±9.06	38.2±9.22	40.1±9.21	38.7±9.16
BMI, kg/m²	25.61±6.16	25.69±5.83	25.61±5.85	25.61±6.05
Female, n (%)	889 (68.8)	456 (67.4)	456 (67.4)	1345 (68.3)
Time since MS symptom onset, years (mean±SD)	8.48±7.33	8.06±7.21	9.94±7.23	8.98±7.33
Time since diagnosis, years (mean±SD)	5.87±6.31	5.45±6.00	7.33±6.01	6.37±6.25
EDSS score at baseline, (mean±SD)	2.90±1.33	2.77±1.32	2.82±1.46	2.88±1.38
IgG levels at baseline, g/L (mean±SD)	10.31± 2.24	10.35±2.09	10.23±2.14	10.28±2.21
IgM levels at baseline, g/L (mean±SD)	1.34± 0.65	1.36±0.74	1.14±0.67	1.27±0.66
Median duration of time at risk, years	3.8	3.2	3.2	3.3
Total time at risk, PYs	4712.2	1957.9	1957.9	6670.1

BMI, body mass index; EDSS, Expanded Disability Status Scale; Ig, immunoglobulin; MS, multiple sclerosis; PYs, patient-years; SD, standard deviation. For OMB newly switched patients, their baseline values from extension study contribute to the overall ofatumumab baseline values. Baseline values are a typical of broad RMS population.

The Safety Profile of Ofatumumab Remained Consistent Across 5 years of Treatment in the Overall Safety Population

Adverse event	Core, ASCLEPIOS				Core + extension, Overall OMB, (N=1969)	
	OMB; n (%)	OMB; EAIR (95% CI)	TER; n (%)	TER; EAIR (95% CI)	n (%)	EAIR (95% CI)
Patients with at least one AE	791 (83.61)	188.55 [175.86, 202.16]	788 (84.2)	188.92 [176.18, 202.58]	1771 (89.9)	124.65 [118.97, 130.59]
Patients with at least one SAE	83 (8.77)	5.56 [4.48, 6.89]	73 (7.8)	4.94 [3.93, 6.21]	289 (14.7)	4.68 [4.17, 5.26]
AEs leading to OMB discontinuation	54 (5.70)	–	49 (5.2)	--	139[a] (7.1)	–
Infections and infestations	488 (51.58)	51.14 [46.80, 55.88]	493 (52.7)	52.59 [48.14, 57.44]	1334 (67.75)	40.99 [38.85, 43.25]
Serious infections	24 (2.54)	1.55 [1.04, 2.31]	17 (1.8)	1.12 [0.69, 1.80]	106 (5.38)	1.63 [1.35, 1.97]
Serious infections (excluding COVID-19)	24 (2.54)	1.55 [1.04, 2.31]	17 (1.8)	1.12 [0.69, 1.80]	61 (3.09)	0.93 [0.73, 1.20]
Serious COVID-19 infections	0	0	0	0	50 (2.53)	0.75 [0.57, 1.00]
Injection-related systemic reactions	195 (20.61)	15.49 [13.46, 17.83]	143 (15.3)	10.90 [9.25, 12.84]	508 (25.79)	10.06 [9.22, 10.98]
Injection-site reactions	103 (10.88)	7.21 [5.94, 8.74]	52 (5.55)	3.54 [2.70, 4.65]	243 (12.34)	4.08 [3.60, 4.63]
Malignancies	5 (0.53)	0.32 [0.13, 0.77]	4 (0.4)[C]	0.26 [0.10, 0.69]	21 (1.06)	0.32 [0.21, 0.48]
Deaths	0	--	1[d]	--	9[b] (0.46)	–

- EAIR per 100 PYs of AEs and SAEs over 5 years of ofatumumab treatment remained consistent during the ASCLEPIOS I/II trials and ALITHIOS extension[1]
- No new safety signals were identified
- The most common AEs were infections (COVID-19 [30.3%], nasopharyngitis [19%], URTI [12.8%] and UTI [12.7%])
  - Most (90.3%) infections resolved without discontinuing ofatumumab treatment

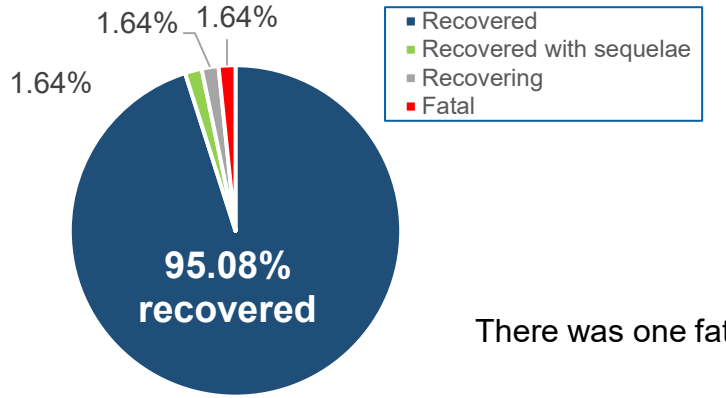
AE, adverse event; CI, confidence interval; URTI, upper respiratory tract infection; UTI, urinary tract infection; EAIR, exposure-adjusted incidence rate per 100 patient years; Exposure-adjusted incidence rates per 100 PYs are defined as the number of patients with a particular event during 100 years of exposure to a treatment, estimated by Poisson regression where patients were censored at time of first event OMB, ofatumumab; PT, preferred term; SAE, serious adverse event; [a]AEs related to reduced IgM levels is the most common reason for treatment discontinuation (n=71 [3.6%]); [b]PT for these 9 cases include: sudden death (n=1), completed suicide (n=1), COVID-19 and COVID-19 pneumonia (n=2), COVID-19 (n=2), intestinal metastasis (n=1), pneumonia and septic shock (n=1); pneumothorax (n=1); [c]One case of basal cell carcinoma was not listed as a serious AE; [d]death was due to aortic dissection. 1. Hauser SL, et al. *N Engl J Med* 2020;383:546−57.

No Increased Risk of Serious Infections (Excluding COVID-19) Was Observed Over 5 Years of Ofatumumab Treatment

Total infections **n=1334;** EAIR: 40.99 [95% CI: 38.85, 43.25]

Serious infections **n= 61;** EAIR: 0.93 [0.73, 1.20]

Outcomes



There was one fatal case[a]

Severity[b]

Grade 1	Grade 2	Grade 3	Grade 4
(2/61; 3.28%)	(20/61; 32.8%)	(35/61; 57.4%)	(4/61; 6.55%)

Discontinuation of ofatumumab: 3 (4.91%)

- The overall EAIR per 100 PYs of serious infections (excluding COVID-19) was consistent with the ASCLEPIOS I/II trials (EAIR: 1.55) and no increased risk was observed over 5 years of ofatumumab treatment; most common serious infections (excluding COVID-19) included appendicitis[c] (n=13) and pneumonia[d] (n=9)
- One case of serious opportunistic infection (*Pneumocystis jirovecii* pneumonia[e]) was reported; the final diagnosis was not confirmed by an external expert and the clinical course was not suggestive of *Pneumocystis jirovecii* pneumonia

[a]one fatal case was due to pneumonia and septic shock [n=1]; [b]severity grading is done by the investigator based on CTCAE version 5.0; [c]all cases recovered and majority of them were not related to ofatumumab treatment; [d]Majority (77.77%) cases recovered; [e]Patient was suspected to have serious, Grade 2 *Pneumocystis jirovecii* pneumonia and was assessed by independent, external expert. No action was taken on ofatumumab therapy and patient recovered; EAIR, exposure-adjusted incidence rate per 100 patient years.

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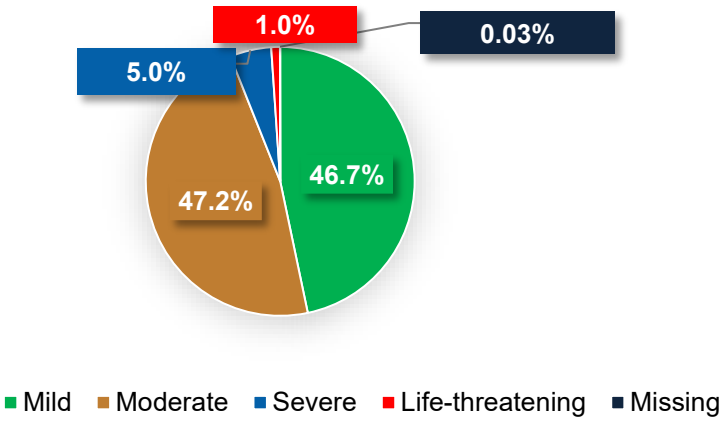
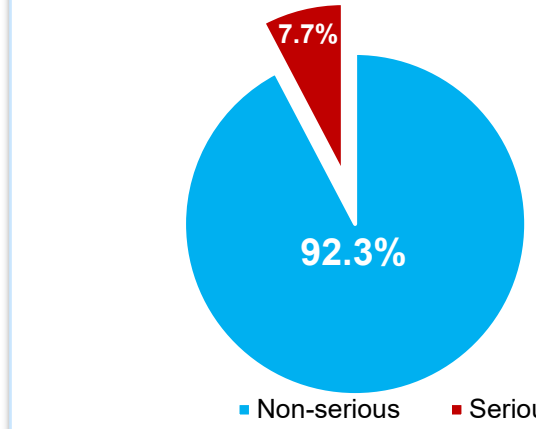
Most COVID-19 Cases were Non-serious, Mild to moderate in Severity and the Majority of Patients Recovered

As of 25-Sep-2022, 648 out of the 1703 patients entering ALITHIOS reported COVID-19 (confirmed [n=603]; suspected [n=45])

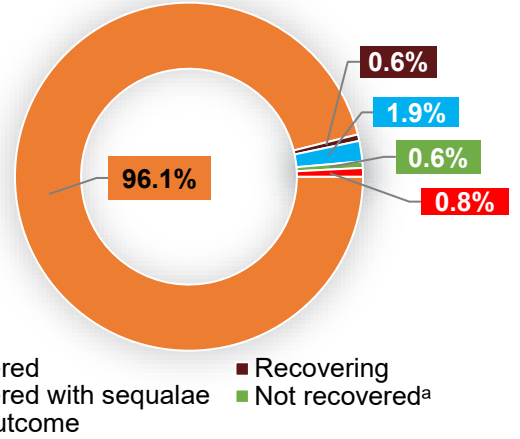
93.9% were mild to moderate



92.3% were non-serious



98.6% patients recovered/recovered with sequalae/recovering



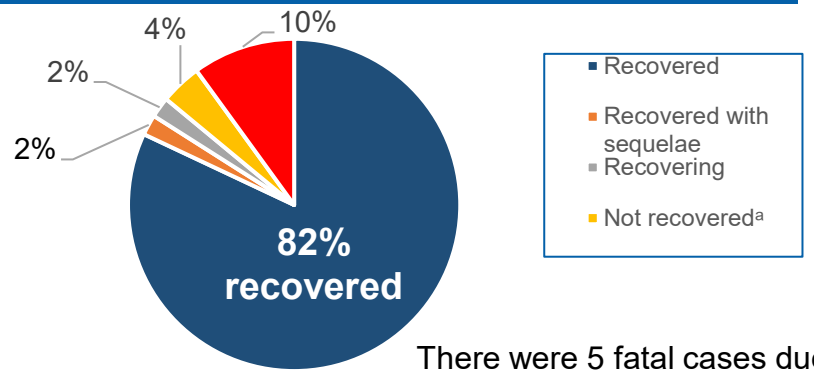
- 93.9% of COVID-19 cases were mild or moderate in severity and 92.3% of cases were characterized as non-serious
- At the data cutoff, 167/704 (23.7%) patients had confirmed COVID-19 after being fully vaccinated; mostly were mild to moderate and most recovered
- Five patients had a fatal outcome[b] (3 patients were unvaccinated; 2 patients were fully vaccinated[c])
- 98.6% of patients treated with ofatumumab recovered, recovered with sequalae or were recovering from COVID-19

*N=1703 represents the enrolled population in the ALITHIOS study; [a]at the time of data cutoff; [b]5 fatal cases consisted of the following: COVID-19 [n=2], COVID-19 pneumonia [n=1], COVID-19 and COVID-19 pneumonia [n=1], COVID-19 pneumonia and pneumothorax [n=1]; [c]Fully vaccinated means at least 14 days after completing the primary vaccine series, may or may not be after booster. These 2 fatal cases are before booster, one case had multiple risk factors for severe COVID-19 and the other case which was complicated by a bilateral pneumothorax).

The Majority of Serious COVID-19 Cases Recovered and were of Grade 3 or below in Severity

Serious COVID-19 cases	n= 50/1703 (2.9%)

Outcomes of serious COVID-19 cases (n=50)



There were 5 fatal cases due to serious COVID-19 course[b]

Severity of serious COVID-19 cases

Grade 1	Grade 2	Grade 3	Grade 4
(2/50; 4%)	(16/50; 32%)	(26/50; 52%)	(6/50; 12%)

Discontinuation of ofatumumab: 5 patients (10%)

- Serious COVID-19 infections were reported in 50 patients (2.9%) during ALITHIOS extension trial
- Of the 50 serious COVID-19 reported cases in patients receiving ofatumumab, majority (82%) recovered
- The majority of serious COVID-19 cases were of Grade 3 or below in severity

[a]at the cut off; [b]5 fatal cases consisted of the following: COVID-19 [n=2], COVID-19 pneumonia [n=1], COVID-19 and COVID-19 pneumonia [n=1], COVID-19 pneumonia and pneumothorax [n=1]

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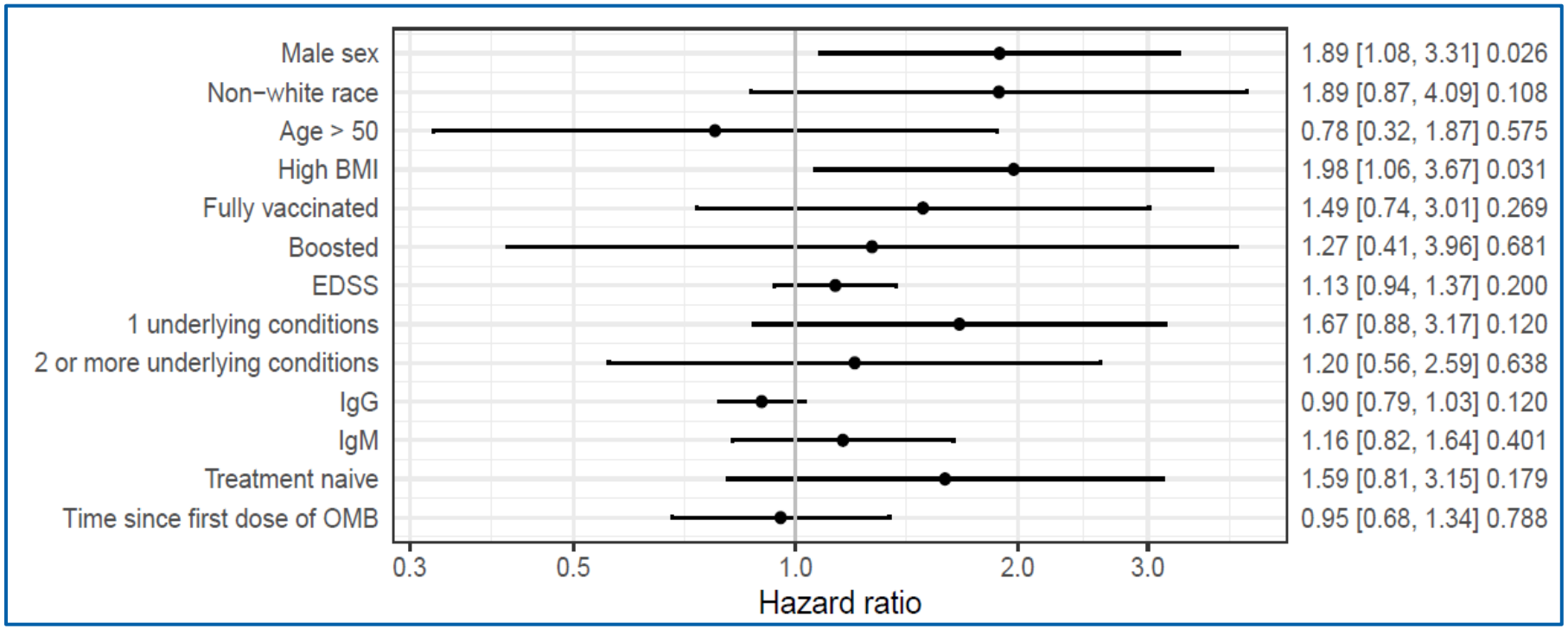
Male Sex and Higher BMI were Associated With Higher Risk of Serious COVID-19

Hazard ratios from Cox model analysis of risk factors of serious COVID−19[a]

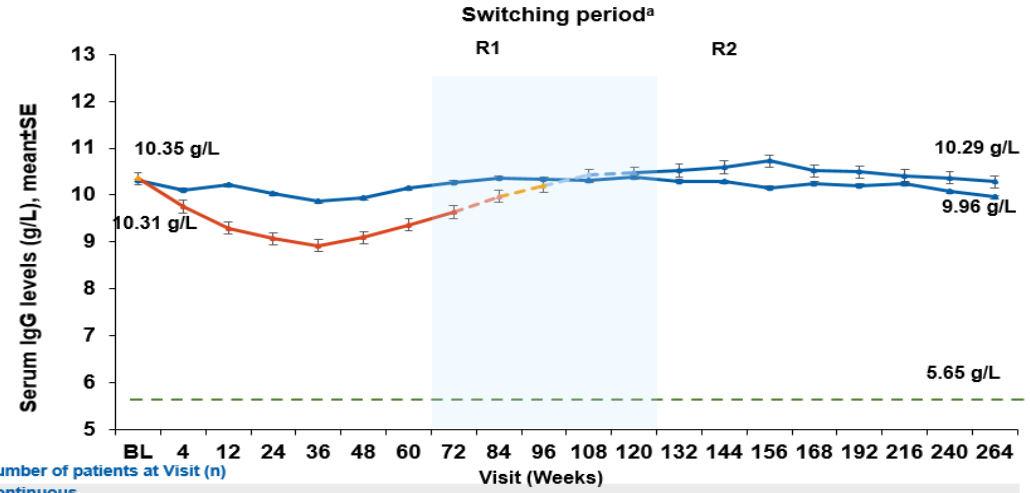


- The only identified risk factors for a serious COVID infections were male sex (HR 1.89) and high BMI (HR 1.98)

[a]The analysis was based on ALITHIOS subjects who were "on ofatumumab" (including 100 days after the last dose) as of the beginning of 2020. It confirmed the association of some factors with serious COVID-19 but did not rule out the potential causation with other factors as reported in literature; Obtained from a Cox model with adjustment for sex, race, age (> vs <= 50), BMI (>= vs < 30), EDSS, number of underlying conditions, prior DMT, and time since first dose of OMB (years), and with vaccination status, IgG, and IgM as time−varying covariates. For covariates other than vaccination status, IgG, IgM, the last available value by 01−Jan−2020 was used; BMI, body mass index; DMT, disease modifying therapy; EDSS, Expanded Disability Status Scale; HR, hazard ratio, OMB, ofatumumab.

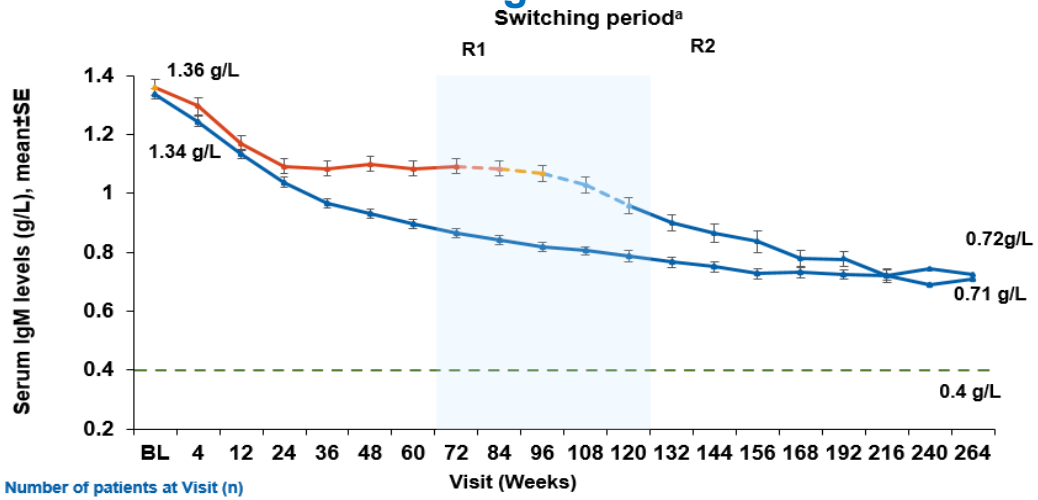
Mean IgG Levels Remained Stable Up to 5 Years of Treatment, While Mean IgM Levels Decreased but Remained Above the LLN

Mean IgG Levels



Number of patients at Visit (n)																				
Continuous OMB	1269	1233	1248	1219	1175	1129	1080	903	982	780	906	662	714	525	530	514	711	564	515	248
TER/OMB	675	672	673	666	672	669	666	670	635	632	630	562	495	441	349	454	561	540	482	224
Before/ After switch	675	672	673	666	672	669	666	664/ 06	477/ 158	313/ 319	167/ 463	72/ 490	495	441	349	454	561	540	482	224

Mean IgM Levels



Number of patients at Visit (n)																				
Continuous OMB	1271	1235	1250	1221	1181	1131	1085	906	986	789	910	669	719	534	538	525	711	566	514	249
TER/OMB	675	672	673	666	672	669	666	670	635	633	632	563	502	445	358	456	563	539	483	225
Before/ After switch	675	672	673	666	672	669	666	664/ 06	477/ 158	313/ 320	167/ 465	72/ 491	502	445	358	456	563	539	483	225

- The majority of patients had Ig levels above LLN (98% in IgG and 69.4% in IgM)
- Treatment interruption/discontinuation[b] was reported in 3 (0.2%)/4 (0.2%) patients due to low IgG; and 202 (10.3%)/71 (3.6%) patients due to low IgM
- Sensitivity analyses confirmed that interruption/discontinuation of ofatumumab due to low IgG/IgM did not impact overall IgG/IgM pattern
- No association between decreased IgG/IgM levels and risk of serious infections was observed (refer to back up slide)

[a]Switching period refers to the patients started with teriflunomide and not applicable to the patients with ofatumumab in core period; For TER/OMB group, data from 1st dose of TER until last dose of OMB plus 100 days/ analyses cut-off date have been used; R1: The first patient with first treatment-emergent assessment in OMB period after switching to OMB (72 weeks); R2: The last patient with last treatment-emergent assessment in TER period before switching to OMB (120 weeks); For all pooled analyses, a fixed value of LLN (using ALITHIOS study reference) was used: IgG: 5.65 g/L and IgM: 0.4 g/L; [b]Per core and extension study protocols, investigators were required to interrupt study treatment if IgM levels fell below 10% LLN or IgG levels fell below 20% LLN. The requirement to interrupt treatment due to low IgM or IgG levels was removed with protocol amendment 2 for study COMB157G2399 and is left to the discretion of the investigator; Treatment interruption PT due to low IgM include blood immunoglobulin M decreased, immunoglobulins decreased, hypogammaglobulinemia and hypoglobulinemia while for discontinuation includes blood immunoglobulin M decreased, immunoglobulins decreased, blood immunoglobulin M abnormal and hypogammaglobulinemia while treatment interruption PT due to low IgG include blood immunoglobulin G decreased and for discontinuation include immunoglobulins decreased, blood immunoglobulin G abnormal, blood immunoglobulin G decreased; BL, baseline; Ig, immunoglobulin; LLN, lower limit of normal; OMB, ofatumumab; SE, standard error of the mean; TER, teriflunomide.

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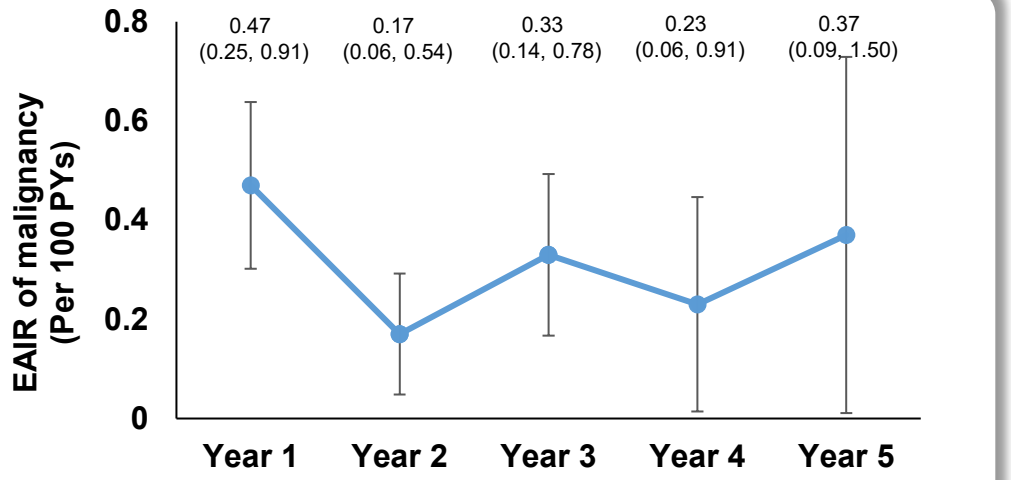
The Incidence of Malignancies Did Not Increase Over Time

EAIR of malignancy by year in overall safety population



Patients (N)	1969	1812	1618	1381	615
PY	1901	1719	1531	877	535
No. of events	9	3	5	2	2

- EAIRs for malignancies did not increase over time in the overall ofatumumab population
- Accumulated malignancies (core+extension) were reported in 21 patients[a] (1.07%) with EAIRs of 0.32 (95% CI: 0.21, 0.48)
- Median onset time since the first dose of ofatumumab was 565 days (191-1747 days)

[a]21 malignancies includes breast and nipple neoplasms malignant (n=9); colorectal neoplasms malignant (n=1); metastases to specified sites (n=1); esophageal neoplasms malignant (n=1); neoplasms malignant site unspecified NEC (n=1); non-Hodgkin's lymphomas NEC (n=1); ovarian neoplasms malignant (excl germ cell) (n=1); renal neoplasms malignant (n=2); skin melanomas (excl ocular) (n=1); skin neoplasms malignant and unspecified (excl melanoma) (n=4).

Conclusions

- Extended treatment with ofatumumab for up to 5 years is well-tolerated in patients with RMS, with no new or increased safety risks identified
  - EAIRs of AEs and SAEs remain consistent with observations in the double-blind Phase 3 ASCLEPIOS I/II trials
  - EAIRs of serious infections remained stable with no increased risk over 5 years
  - Mean IgG levels remained stable while mean IgM levels decreased but remained above the lower limit of normal; no association between reduction in Ig levels and risk of serious infections
  - Most reported cases of COVID-19 were non-serious, and the majority of patients recovered
  - No increase in risk of malignancies up to 5 years
- Combined with its sustained efficacy, these findings support the favorable benefit–risk profile for ofatumumab in RMS patients

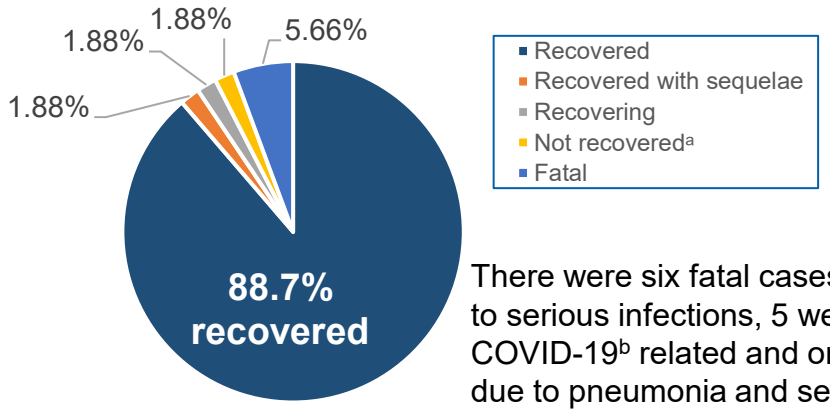
AE, adverse event; EAIR, exposure-adjusted incidence rate; Ig, immunoglobulin; RMS, relapsing multiple sclerosis; SAE, serious adverse event.

Incidence of Serious Infections Remained Stable Over Time and Did Not Increase With Longer-term Use up to 5 Years

Total infections **n=1334;** EAIR: 40.99 [95% CI: 38.85, 43.25]

Serious infections n= 106; EAIR: 1.63 [1.35,1.97)

Outcomes of serious infections



There were six fatal cases due to serious infections, 5 were COVID-19[b] related and one was due to pneumonia and septic shock

Severity of serious infections

Grade 1	Grade 2	Grade 3	Grade 4
(3/106; 2.83%)	(33/106; 31.13%)	(60/106; 56.60%)	(10/106; 9.43%)

Discontinuation of ofatumumab: 8 (7.55%)

- The overall EAIR per 100 PYs of serious infections was consistent with Phase 3 ASCLEPIOS I/II trials (EAIR: 1.55) and did not increase with treatment up to 5 years despite COVID-19 pandemic; most common serious infections were COVID-19 /COVID-19 pneumonia[c] (n=50) and appendicitis (n=13)[d]
- One case of serious opportunistic infection of *Pneumocystis jirovecii* pneumonia[e] was reported; the final diagnosis was not confirmed by an external adjudication panel and the clinical course was not suggestive of *Pneumocystis jirovecii* pneumonia

[a]at the cut off; [b]6 fatal cases consisted of the following: COVID-19 [n=2], COVID-19 pneumonia [n=1], COVID-19 and COVID-19 pneumonia [n=1], COVID-19 pneumonia and pneumothorax [n=1], and pneumonia and septic shock [n=1]; [c]there are n=50 COVID-19–related SAE's in total, one of them has PT of "suspected COVID-19"; majority (82%) of cases recovered; [d]all cases of appendicitis recovered and majority of them were not related to ofatumumab treatment [e]Patient was suspected to have serious, Grade 2 *Pneumocystis jirovecii* pneumonia and was assessed by independent, external expert. No action was taken on ofatumumab therapy and patient recovered; EAIR, exposure-adjusted incidence rate.

No Association Between Decreased IgG/IgM Levels and Risk of Serious Infections

Patients with ≥1 serious infection within 1 month prior and until 1 month after any series of drops in IgG/IgM <LLN

	IgM				IgG				Overall	
	<LLN (N=601†)		≥LLN (N=1365‡)		<LLN (N=40†)		≥LLN (N=1926‡)		N=1969	
	n (%)	EAIR§	n (%)	EAIR§	n (%)	EAIR§	n (%)	EAIR§	n (%)	EAIR§
Patients with ≥1 serious infection	10 (1.66)	1.45	72 (5.27)	1.58	3 (7.5)	11.75	99 (5.14)	1.56	106 (5.38)	1.63
Herpes zoster (PT)	1 (0.17)	0.14	1 (0.07)	0.02	0	0	2 (0.10)	0.03	2 (0.1)	0.03
URTI (PT)	1 (0.17)	0.14	0	0	0	0	1 (0.05)	0.02	1 (0.1)	0.01
UTI (PT)	2 (0.33)	0.29	4 (0.29)	0.09	0	0	7 (0.36)	0.11	7 (0.4)	0.11
COVID-19	4 (0.67)	0.58	20 (1.47)	0.43	0	0	27 (1.40)	0.41	27 (1.4)	0.41
Bronchitis	1 (0.17)	0.14	0	0	0	0	1 (0.05)	0.02	1 (0.1)	0.01
Pneumonia	0	0	8 (0.59)	0.17	1 (2.5)	3.88	8 (0.41)	0.12	9 (0.5)	0.14
Pyelonephritis chronic	1 (0.17)	0.14	0	0	1 (2.5)	3.86	0	0	1 (0.1)	0.01
COVID-19 pneumonia	0	0	18 (1.32)	0.39	1 (2.5)	3.88	24 (1.25)	0.37	27 (1.4)	0.41

- No association between decreased IgG/IgM levels and risk of serious infections was observed
- EAIRs observed are too small to draw any meaningful conclusions and this evaluation continues to be monitored

† Number of patients with IgM/IgG <LLN at least once at any time during the post-baseline visits; ‡ Number of patients with no occurrence of IgM/IgG <LLN at least once at any time during the post-baseline visit; § IR per 100 PYs estimated via a Poisson regression model with only treatment as the factor and with the log-link and natural logarithm of time as the offset variable. For all pooled analyses, a fixed value of LLN (using ALITHIOS study reference range) was used LLN for IgG: 5.65 g/L; IgM: 0.4 g/L. Ig, immunoglobulin; EAIR, exposure adjusted incidence rate; LLN, lower limit of normal; PT, preferred term; PY, patient year.

Exposure-adjusted Incidence Rates for Malignancies in the Overall Safety Population

Malignancies[a]	Overall Ofatumumab, N=1969 n (EAIR), [95% CI]
All malignancies	21 (0.32), [0.21, 0.48]
Breast and nipple neoplasms malignant	9 (0.13), [0.07, 0.26]
Skin neoplasms malignant and unspecified (excl melanoma)	4 (0.06), [0.02, 0.16]
Renal neoplasms malignant	2 (0.03) [0.01, 0.12]
Colorectal neoplasms malignant	1 (0.01) [0.00, 0.11]
Metastases to specified sites	1 (0.01) [0.00, 0.11]
Esophageal neoplasms malignant	1 (0.01) [0.00, 0.11]
Neoplasms malignant site unspecified NEC	1 (0.01) [0.00, 0.11]
Non-Hodgkin's lymphomas NEC	1 (0.01) [0.00, 0.11]
Ovarian neoplasms malignant (excl germ cell)	1 (0.01) [0.00, 0.11]
Skin melanomas (excl ocular)	1 (0.01) [0.00, 0.11]

[a]The malignancy cases were grouped by MedDRA high-level term; CI, confidence interval; EAIR, exposure-adjusted incidence rate; n, is number of patients and a patient can have >1 malignancy at a time.

Continuous Ofatumumab Treatment Showed Sustained Efficacy by Reducing Relapses, MRI Lesions, Risk of Disability Worsening and by Increasing the Odds of NEDA-3

Four-Year Efficacy Outcomes of Ofatumumab

ARR

Between-group analysis:

- **43.4%** reduction **in cumulative number of relapses** observed with continuous ofatumumab versus switch from teriflunomide

Within-group analysis:

- **Continuous group: significant reduction by 49.4%**
- **Switch group: pronounced reduction by 71.7%**

Gd+ T1 lesions

Between-group analysis:

- **95%** reduction in the **cumulative number of Gd+T1 lesions** with continuous use of ofatumumab versus switch

Within-group analysis:

- **Continuous group:** reduction by **61.9%**
- **Switch group: almost complete suppression by 97.2%**

neT2 lesions

Between-group analysis:

- **83.7%** reduction in the **cumulative number of neT2 lesions** with continuous use of ofatumumab versus switch

Within-group analysis:

- **Continuous group: reduction by 89.6%**
- **Switch group: pronounced reduction by 86.1%**

NEDA-3

- **Continuous group**: nearly **8 out of 10 patients** had NEDA-3
- **Switch group**: about **5 out of 10 patients** had NEDA-3
- **Cumulatively over 4 years**, the odds of maintaining NEDA-3 status was **>3-fold higher with the earlier initiation of ofatumumab**

- Continuous ofatumumab treatment up to 4 years showed **sustained efficacy** by **reducing relapses, MRI lesions, risk of disability worsening** and **by increasing the odds of keeping patients free of disease activity** (NEDA-3).
- Patients who switched from teriflunomide to ofatumumab in the extension phase demonstrated **pronounced reductions in relapses and MRI lesions**. Cumulatively, over 4 years, the odds of maintaining NEDA-3 was >3-fold higher with the earlier initiation of OMB

For NEDA-3, rebaseline at the entry of extension was performed
ARR, annualized relapse rate; Gd+, gadolinium-enhancing; neT2, new or enlarging T2; NEDA, no evidence of disease activity. 1. Kappos L, et al. Poster presented at EAN 2022. EPR161.