Supplementary Table 1. Incidence of serious infections.

	SC IFNB-1a 44 µg		Alemtuzumab 12 mg						
	Year 1 (*n*=496)	Year 2 (*n*=459)	Year 1 (*n*=918)	Year 2 (*n*=917)	Year 3 (*n*=875)	Year 4 (*n*=824)	Year 5 (*n*=787)	Year 6 (*n*=766)	EAIR per 100 patient-years Years 0–6
Any event, n (%)	2 (0.4)	3 (0.7)	17 (1.9)	9 (1.0)	13 (1.5)	13 (1.6)	10 (1.3)	8 (1.0)	1.3
Pneumonia	0	0	0	4 (0.4)	1 (0.1)	5 (0.6)	0	1 (0.1)	0.2
Varicella zoster[a]	0	0	2 (0.2)	0	2 (0.2)	1 (0.1)	3 (0.4)	0	0.2
Appendicitis	0	1 (0.2)	3 (0.3)	1 (0.1)	1 (0.1)	0	0	0	0.1
Gastroenteritis[b]	0	0	3 (0.3)	1 (0.1)	1 (0.1)	1 (0.1)	0	1 (0.1)	0.1
Sepsis	0	0	0	0	3 (0.3)	1 (0.1)	1 (0.1)	0	0.1
Abscess bacterial	0	0	0	0	0	1 (0.1)	0	0	0
Anogenital warts	0	0	0	0	1 (0.1)	0	0	1 (0.1)	0
Breast abscess	0	0	0	0	0	0	0	1 (0.1)	0
Catheter site infection	1 (0.2)	0	0	0	0	0	0	0	0
Cervicitis	0	0	0	0	1 (0.1)	0	0	0	0

Diverticulitis	0	0	0	0	0	0	0	1 (0.1)	0
Disseminated tuberculosis	0	0	0	1 (0.1)	0	0	0	0	0
Endometritis	0	0	0	0	0	1 (0.1)	0	0	0
Enterocolitis infectious	0	0	0	0	0	0	1 (0.1)	0	0
Esophageal candidiasis	0	0	1 (0.1)	0	0	0	0	0	0
Febrile infection	0	0	1 (0.1)	0	0	0	0	0	0
Helicobacter infection	0	0	0	0	0	0	0	01 (0.1)	0
Hepatitis A	1 (0.2)	0	0	0	0	0	0	0	0
Hepatitis C	0	0	0	0	0	0	1 (0.1)	0	0
HIV infection	0	0	0	0	0	0	1 (0.1)	0	0
Infection	0	0	0	0	0	1 (0.1)	0	0	0
Infective myositis	0	0	0	0	1 (0.1)	0	0	0	0
Influenza	0	0	0	1 (0.1)	0	1 (0.1)	0	0	0
Injection-site abscess	0	1 (0.2)	0	0	0	0	0	0	0
Labyrinthitis	0	0	1 (0.1)	0	0	0	0	0	0
Lower respiratory tract infection	0	0	0	0	1 (0.1)	0	0	0	0
Meningitis herpes	0	0	1 (0.1)	0	0	0	0	0	0

Pancreas infection	0	0	0	0	0	1 (0.1)	0	0	0
Pasteurella infection	0	0	1 (0.1)	0	0	0	0	0	0
Postoperative wound infection	0	0	1 (0.1)	0	0	0	0	0	0
Post-procedural infections	0	0	0	0	0	1 (0.1)	0	0	0
Pyelonephritis	0	0	0	1 (0.1)	0	0	0	1 (0.1)	0
Pyelonephritis acute	0	0	0	0	0	0	1 (0.1)	0	0
Pyelonephritis chronic	0	1 (0.2)	0	0	0	0	0	0	0
Respiratory tract infection[c]	0	0	0	0	0	0	1 (0.1)	0	0
Sinusitis[d]	0	0	0	0	0	1 (0.1)	0	0	0
Subcutaneous abscess	0	0	0	0	1 (0.1)	0	1 (0.1)	0	0
Tooth infection	0	0	1 (0.1)	1 (0.1)	0	0	0	0	0
Upper respiratory tract infection[e]	0	0	1 (0.1)	0	0	0	0	0	0
Urinary tract infection[f]	0	0	1 (0.1)	0	0	0	0	1 (0.1)	0
Uterine infection	0	0	1 (0.1)	0	0	0	0	0	0
Varicella	0	0	1 (0.1)	0	0	0	0	0	0
Viral infection	0	0	0	0	0	1 (0.1)	0	0	0

SC IFNB-1a: subcutaneous interferon beta-1a; EAIR: exposure-adjusted incidence rate per 100 patient-years; (Number of patients with a specific event divided by total exposure time among patients at risk of an initial occurrence of the event) x 100.

Percentage is based on number of patients having an adverse event in the reported year divided by the total number of patients followed up in that year.

[a]Includes preferred terms “herpes zoster” and “herpes zoster multidermatomal”.

[b]Includes preferred terms “gastroenteritis” and “gastroenteritis viral”.

[c]Includes preferred terms “respiratory tract infection” and “respiratory tract infection viral”.

[d]Includes preferred terms “sinusitis” and “acute sinusitis”.

[e]Includes preferred terms “upper respiratory tract infection” and “viral upper respiratory tract infection”.

[f]Includes preferred terms “urinary tract infection” and “*Escherichia* urinary tract infection” and “urinary tract infection bacterial”.

Supplementary Table 2. Infection incidences in patients who received exactly 2 courses of alemtuzumab 12 mg[a] compared with the overall cohort of alemtuzumab 12-mg–treated patients.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	EAIR per 100 patient-years Years 0–6
Patients who received exactly 2 courses of alemtuzumab 12 mg	(*n*=547)	(*n*=547)	(*n*=516)	(*n*=470)	(*n*=442)	(*n*=428)	
All alemtuzumab 12 mg-treated patients	(*n*=918)	(*n*=917)	(*n*=875)	(*n*=824)	(*n*=787)	(*n*=766)	
Any infection, *n* (%)	317 (58.0)	289 (52.8)	227 (44.0)	190 (40.4)	169 (38.2)	159 (37.1)	50.14
	539 (58.7)	482 (52.6)	408 (46.6)	353 (42.8)	322 (40.9)	292 (38.1)	50.85
Grade 1	157 (28.7)	163 (29.8)	112 (21.7)	93 (19.8)	89 (20.1)	70 (16.4)	20.02
	282 (30.7)	260 (28.4)	185 (21.1)	170 (20.6)	155 (19.7)	125 (16.3)	19.68
Grade 2	241 (44.1)	199 (36.4)	159 (30.8)	143 (30.4)	110 (24.9)	118 (27.6)	31.37
	403 (43.9)	348 (37.9)	295 (33.7)	262 (31.8)	227 (28.8)	215 (28.1)	32.34
Grade 3	14 (2.6)	8 (1.5)	5 (1.0)	6 (1.3)	3 (0.7)	5 (1.2)	1.31
	17 (1.9)	13 (1.4)	11 (1.3)	9 (1.1)	8 (1.0)	9 (1.2)	1.25
Grade 4	0	1 (0.2)	0	1 (0.2)	0	0	0.07

	0	1 (0.1)	0	2 (0.2)	0	0	0.06
Grade 5	0	0	1 (0.2)	0	0	0	0.03
	0	0	1 (0.1)	0	0	0	0.02
Leading to study discontinuation	0	0	0	0	0	0	0
	0	0	0	0	0	0	0
Leading to study withdrawal	0	0	0	0	1 (0.2)	0	0.03
	0	0	0	0	1 (0.1)	0	0.02
Any serious infection, *n* (%)	13 (2.4)	7 (1.3)	7 (1.4)	9 (1.9)	3 (0.7)	3 (0.7)	1.39
	17 (1.9)	9 (1.0)	13 (1.5)	13 (1.6)	10 (1.3)	8 (1.0)	1.26

EAIR: exposure-adjusted incidence rate per 100 patient-years; (Number of patients with a specific event divided by total exposure time among patients at risk of an initial occurrence of the event) x 100.
Percentage is based on number of patients having an adverse event in the reported year divided by the total number of patients followed up in that year.
[a]Patients could have received another disease-modifying therapy.