

**Supplemental Table 3. The incidence and prevalence of epilepsy in the multiple sclerosis population as compared to controls**

Study (year)	MS, n	Controls, n (matched)	Source of controls	Epilepsy in MS	Epilepsy in controls	Comparison
<i>Prevalence</i>						
Kang <sup>27</sup> (2010)	898	4490 (yes: sex, age, monthly income level of urbanization in community)	Randomly selected patients from the NHIRD	Epilepsy 57/898 = 6.35%	Epilepsy 19/4,490= 0.42%	OR 16.0 (9.5-27.1)
Marrie <sup>29</sup> (2013)	4,192	20,940 (yes: sex, year of birth and region of residence)	General population of Manitoba	Epilepsy 4.12% (3.42–4.82)	Epilepsy 1.12% (0.96-1.29)	3-fold higher than General Population
Nicoletti <sup>5</sup> (2003)	175	NR	Incidence risk of General Population of Sicily	Epilepsy Age-adjusted prevalence 7.7/1,000	Epilepsy Age-adjusted prevalence 3.7/1,000	NR
<i>Incidence</i>						
Allen <sup>13</sup> (2013)	ORLS: 3,913 HES: 85,772	NR (yes: age, sex, calendar year of first recorded admission, socio-economic status)	ORLS, HES/Constructed from people with first admissions for minor medical and surgical conditions	ORLS 62/3,913 = 1.58%  HES 2,580/85,772 = 3.01%	ORLS 15.3/3,913 = 0.39%  HES 809.7/85,772 = 0.94%	RR 4.1 (3.14–5.27)  3.3 (3.14–3.40)
Nicoletti <sup>5</sup> (2003)	170	NR	Incidence risk of General Population of Copparo in 1983	Epilepsy Age-adjusted incidence 147.8/100,000	Epilepsy Age-adjusted incidence 44.7/100,000	RR 3.29 (2.36-4.59)
Nyquist <sup>33</sup> (2002)	208	NR	General population of Rochester from 1935-1984. Obtained from previous study.	Epileptic seizures after definite MS diagnosis Age-adjusted incidence 61/100,000 person years	Epilepsy Age-adjusted incidence 61/100,000 person years	Epileptic seizures after definite MS diagnosis P = 0.88

				(7-114) Epileptic seizures after first MS symptoms Age-adjusted incidence 80/100,000 person years (24-135)		Epileptic seizures after first MS symptoms P=0.70
Olafsson <sup>35</sup> (1999)	188	Estimated age-specific incidence in Iceland	General population of Iceland	Epilepsy After MS onset 4/188 = 2.13%  Epilepsy After MS diagnosis 3/188 = 1.60%	NR	SIR Epilepsy After MS onset 2.9 (0.8-7.4)  Epilepsy After MS diagnosis 3.0 (0.6-8.8)

NR: Not Reported, OR: Odds Ratio, RR: Relative Risk, SIR: Standardized Incidence Ratio, HES: English National Hospital Episode Statistics, ORLS: Oxford Record Linkage Study,

NHIRD: National Health Insurance Research Database.