

Supplemental Table 16. Studies reporting the prevalence of ischemic heart disease in multiple sclerosis

Study (Year)	Region/ Sub-Region	Source/ Population	Prevalence Day/Period	Diagnostic Criteria: MS/ Established By	Diagnostic Criteria: Ischemic Heart Disease/ Established By	Crude Overall Prevalence (95% CI)	Age-Standardized Overall Prevalence (95% CI)	Crude Prevalence (95% CI)		Standardized Prevalence (95% CI)		Quality Score
								Males	Females	Males	Females	
Allen ⁷ (2008)	United States/ New York	SPARCS/ 95% of New York State acute care hospitalizations	1988-2002	ICD-9-CM 340.0 as secondary discharge diagnosis	IHD ICD-9-CM 410-414 MI ICD-9-CM 410/ as primary discharge diagnosis	IHD 355/9,949 = 3.57% MI 142/9,949 = 1.43%	NR	NR	NR	NR	NR	4/8
Fleming ¹¹ (1994)	United States	Hospitalized Medicare MS population, age ≥ 65 years	1989	ICD-9-CM code 340 as primary or secondary discharge diagnosis	Administrative data code (code NR)	Angina: 1.38% Chronic IHD: 0.70% Both 3.08%	NR	NR	NR	NR	NR	4/8
Fromont ²³ (2013)	France	Whole population	Oct 31, 1995- Oct 31, 2004	Neurologist, ALD status 25	ALD 3 chronic	92/21,119 = 16.2%	NR	38/5,620 = 20.2%	54/15,499 = 14.2%	NR	NR	7/8

		of newly diagnosed MS patients with ALD status before age 45 years			arteriopathy with ischemic expression ALD 13 coronary disease							
Horton ²⁶ (2010)	Canada/ Manitoba United States/ Ohio	Participants recruited from 2 different MS clinics	Oct 2008-Oct 2009	MacDonald 2005; diagnosed by neurologist at MS clinic	The Self-Administered Comorbidity Questionnaire (questionnaire validated against medical records).	Heart disease: 11/404= 2.7% by medical records review, 17/404 = 4.2% by self-report	NR	NR	NR	NR	NR	5/8
Kang ⁸ (2010)	Taiwan	NHIRD population, age ≥15 years	2007	At least two claims with ICD-9-CM code 340 in 2007, under care of certified neurologist	ICD-9-CM 410-412 at one hospital or two ambulatory claims	7/898 = 0.78%	NR	NR	NR	NR	NR	4/8
Kanjwal ²⁹ (2010)	United States/ Toledo, Ohio	Patients followed up at the University of Toledo Autonomic Disorder	1998-2008	Neurologist (criteria not specified)	Medical chart review/physician letters review	2/9= 22.2%	NR	NR	NR	NR	NR	3/8

		Center										
Khan ⁹ (2007)	Australia/ Melbourne	MS database Royal Melbourne Hospital	Jan 2005-Feb 2005	Neurologist diagnosed: Poser and Paty	Self-report	2/62 = 3.23%	NR	NR	NR	NR	NR	3/9
LaVela ¹⁰ (2012)	United States	National cohort of male Veterans with MS, members of veteran service organization	2003, 2004	Veterans Benefits Department confirmed	Telephone and mailed survey (Multiple Sclerosis- Health Care Questionnaire using questions similar to BRFSS)	NR	NR	120/ 1,142 = 10.5%	NR	NR	NR	4/8
Lindegard ³² (1985)	Sweden	Native Swedes born 1911-1940 in Gothenburg	1970-1979	ICD 340, 341 inpatient records	MI ICD 410, 412	NR	NR	Young males 5.7% Older males 12.7%	Young females 0.0% Older females 7.4%	NR	NR	4/8
Marrie ⁵⁷ (2013)	Canada/ Manitoba	Administrati ve data, entire Manitoba population	1984-2005	1984–1997 all cases with ≥7 hospital or physician claims for MS. 1998- 2007 all cases	ICD-9/10 codes 410–414, I20–I25/ ≥1 hospital or ≥2 physician claims over 5 years	5.90% (4.94– 7.05%)	6.77% (5.48– 8.07%)	NR	NR	12.3% (9.69- 15.7)	3.70% (2.85- 4.79)	8/8

				with ≥ 3 hospital, physician or prescription claims for MS.								
Nuyen ³⁹ (2006)	Netherlands	DNSGP	2001	ICPC code N86	Consultation with GP (1-year period). ICPC K74, K75, K76, K77	2/241 = 0.83%	NR	NR	NR	NR	NR	5/8
Sheu ⁴⁴ (2013)	Taiwan	LHID 2000 Database of Taiwan, incident MS enrolled in registry of catastrophic illness, and age >18 years	Jan 2002-Dec 2009	LHID Database. ICD-9-CM code 340 and certified by neurologist (Poser)	LHID Database. Codes not specified	31/316= 9.8%	NR	NR	NR	NR	NR	5/8

NR: Not Reported, IHD: Ischemic Heart Disease, MI: Myocardial Infraction, SPARCS: New York Department of Health Statewide Planning and Research Cooperate System, ALD:

Affections de Longue Duree, NHIRD: National Health Insurance Research Database, DNSGP: Dutch National Survey of General Practice, GP: General Practitioner, LHID 2000 Database:

Taiwan Longitudinal Health Insurance Database, BRFSS = Behavioral Risk Factor Surveillance System