Table 2.2. Cohort studies of HTLV-1 and ATLL

Reference, location, name of study	Cohort description	Detection method	Exposure category	No. of cases/ deaths	Measure of occurence (95% CI)	Comments
Tokudome *et al.* (1991) Japan, Kyushu	3991 HTLV-1 seropositive blood donors aged ≥40 years from four blood centres in Kyushee who donated blood between 1984–1987	Particle agglutination antibody assay for HTLV-1	Men Women	3 2	ATLL crude mortality rates per 100 000 68.1 (12.8-201.7) 35.8 (3.4-131.5)	2 additional deaths in each sex from malignant B-cell lymphoma
Iwata *et al*. (1994) Japan, Nagasaki Prefecture	1997 individuals aged ≥30 years from an HTLV-1 endemic community in Nagasaki Prefecture screened between 1984 and 1990; 503 (25.2%) seropositive for HTLV-1	Particle agglutination antibody assay for HTLV-1	(1 male, 1 female)	2	ATLL crude mortality rate, 77 per 100 000	No expected value was given.
Arisawa *et al.* (2000) Japan, Nagasaki, K Island	8771 men & 9714 women screened in public health annual exams or at K Hospital during 1985–96; ATLL cases ages 35–82 years	Particle agglutination assay (PAA) for anti-HTLV-1.	Men Women	24 16	Lifetime (30-79 yrs) risk among carriers: 6.6% (3.8–9.2) 2.1% (1.0–3.1)	Age adjusted; ATLL accounted for 51–59% of NHL in study area
	Incident cases of ATLL (n=40) and NHL (n=35) from Prefecture Cancer Registry for same cancer registry for same time or diagnosed via screening	Validity of PAA confirmed on re-test of 106 positive and 101 negative subjects.			Rate Ratio for risk men vs women carriers: 2.50 (1.32–4.73)	

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Reference, location, name of study	Cohort description	Detection method	Exposure category	No. of cases/ deaths	Measure of occurence (95% CI)	Comments
Hisada *et al*. (2001) Japan, Miyazaki, Miyazaki Cohort Study (MCS)	2005 residents of 2 HTLV-1 endemic villages in Miyazaki Prefecture screened in public health annual exams, 1984–1997. Mortality follow-up by public health nurses. 550 HTLV-1 carriers including 24 seroconverters; 6 deaths from ATLL (ages 64-83 years)	PAA for anti-HTLV-1 confirmed by western blot	All HTLV-1 carriers Women Men Perinatally-infected HTLV-1 carriers Women Men	 2 4 	RR (p-value) 1.0 (ref) 3.9 (p=0.02) 1.0 (ref) 3.7 (p=0.02)	Age adjusted; Perinatal infection estimated by assuming most women acquired HTLV-1 infection by sexual exposure; 6 deaths from ATL in persons ages 64-83 years
Arisawa *et al.* (2003) Japan, Nagasaki, B Island, part of Japan Public Health Center-based Prospective Study of Cancer & Cardiovascular Diseases	1852 men & 2284 women 1985-92 (ages 40-69 years at baseline). Recruited via public health exams or outpatient clinics in A Hospital. Mortality follow-up by public health center 1993- 2000. 10 ATLL deaths among 1063 HTLV-1 carriers.	PAA for anti-HTLV-1	Deaths Men Women Incident cases Men Women	8 2 5 1	Crude mortality rate per 1000 person-years: 1.25 (0.60–2.30)	
Arisawa *et al.* (2006) Japan, Nagasaki, Atomic Bomb Casualty Commission-Radiation Effects Research Foundation	1078 men & 1655 women atomic bomb survivors who were screened for HTLV-1 during 1985–7; ages 39–92 years; Followed through 2001. 8.2% of men and 8.5% of women were HTLV-1 positive.	Indirect immunofluorescence	Incident ATLL cases Men Women	2 1 1	Crude incidence rate per 1000 person-years: 0.71 (0.09–2.55)	