

Domain	Prognostic factor	Study	Result (hazard ratio, 95% confidence intervals); p-value	
			Univariate analysis	Multivariate analysis
Rating scales	NNIPPS Parkinson Plus score	Payan 2011	1.02 (1.01, 1.02); p<0.0001	1.01 (1.01-1.02); p<0.0001
	Schwab & England Activities of Daily Living (MSA and PSP)	Bensimon 2009	0.98 (0.98, 0.98); p<0.001	0.99 (0.98, 0.99); p<0.001
	Clinical Global Impression disease severity (MSA and PSP)		1.69 (1.49-1.86); p<0.001	1.28 (1.09, 1.51); p=0.003
	Hoehn & Yahr staging (MSA and PSP)		1.66 (1.48-1.86); p<0.001	NS
	Hoehn & Yahr staging score III compared to score I and II (MSA)	Wenning 1994	NA	1.72 (0.91, 3.26); p=0.095
	Hoehn & Yahr staging score stage 5 at study entry	Krim 2007	5.93 (1.59, 22.1); p=0.008	12.45 (1.93, 80.93); p=0.008
	Northwestern University Disability scale >22 (MSA)	Testa 1996	1.76 (0.8, 3.89); p=0.16	NA
	UMSARS activities of daily living sub-score	Wenning 2013	NA	1.04 (1.01, 1.07); p=0.021
	UMSARS I score >25	Low 2015	1.25 (0.82, 1.90); p=0.82	NA
	UMSARS II score >25		1.13 (0.75, 1.71); p=0.82	NA
	PSP rating scale (PSPRS) overall score	Chiu 2010	S	NA
	PSPRS score at 1 <sup>st</sup> visit	Golbe 2007	P>0.94	NA
	Initial progressivity PSPRS score		P=0.19	P<0.0001
Disease duration and progression	Disease duration per year	Bensimon 2009	1.0 (0.95-1.06); p=0.96	0.92 (0.87, 0.98); p=0.007
	Interval between disease onset and first clinical milestone (PSP)	O'Sullivan 2008	NA	0.8 (0.71, 0.9); p<0.001
	Interval between disease onset and first clinical milestone (MSA)		NA	0.58 (0.49, 0.68); p<0.001
	Less than 54 months between onset and first milestone	Dell'Aquila 2013	3.4 (1.4, 8.3); p=0.005	NS
Co-morbidities	History of neurological disorders	Krim 2007	0.21 (0.04, 0.93); p=0.04	NS
	History of endocrine disorders		2.45 (0.99, 6.01); p=0.05	10.7 (2.1, 54.2); p=0.0004
	Thyroid conditions, diabetes, smoking, alcohol abuse	Litvan 2001	NS	NA
Residential	Not admitted to residential care (MSA)	O'Sullivan 2008	NA	2.8 (1.45, 5.46); p=0.002

**Supplementary Table 7.** Summary of prognostic factors relating to disease severity, progression and rating scales in PSP and MSA. NA = not applicable; NNIPPS = Neuroprotection and Natural History in Parkinson Plus Syndromes; NS = not significant; PSPRS = PSP Rating Scale; UMSARS = unified MSA rating scale