

Additional file 3: Tables

Article title: Socioeconomic status and survival after stroke - using mediation and sensitivity analyses to assess the effect of stroke severity and unmeasured confounding

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1 Probit regression models used in main analyses

Table 1: Probit models for the mediator lowered consciousness at hospital arrival and outcome death 0-3 months, by stroke type. Estimated regression parameters with 95% CIs in parentheses.

	ICH		IS	
	Lowered consciousness	Death 0-3 months	Lowered consciousness	Death 0-3 months
Intercept	0.261 (-0.243, 0.765)	-1.956 (-2.646, -1.267)	0.117 (-0.202, 0.437)	-1.677 (-2.159, -1.195)
Low income	0.115 (0.048, 0.182)	0.055 (-0.023, 0.133)	0.065 (0.033, 0.097)	0.041 (0.006, 0.077)
Lowered consciousness		1.363 (1.289, 1.436)		1.208 (1.168, 1.247)
Male	-0.148 (-0.214, -0.082)	0.037 (-0.041, 0.114)	-0.071 (-0.103, -0.039)	0.042 (0.005, 0.078)
Age	-0.023 (-0.039, -0.008)	-0.012 (-0.033, 0.008)	-0.058 (-0.067, -0.049)	-0.038 (-0.051, -0.025)
Age ²	< 0.001 (<0.001, <0.001)	< 0.001 (<0.001, <0.001)	< 0.001 (<0.001, 0.001)	< 0.001 (<0.001, 0.001)
Atrial fibrillation	0.052 (-0.031, 0.135)	0.279 (0.187, 0.371)	0.352 (0.319, 0.384)	0.223 (0.188, 0.259)
Diabetes	0.052 (-0.038, 0.142)	0.095 (-0.009, 0.198)	0.054 (0.016, 0.092)	0.149 (0.108, 0.190)
Smoking status				
Unknown	0.636 (0.540, 0.731)	0.561 (0.455, 0.667)	0.404 (0.351, 0.457)	0.413 (0.356, 0.469)
Smoker	0.027 (-0.077, 0.131)	0.111 (-0.015, 0.237)	0.021 (-0.026, 0.068)	0.051 (-0.005, 0.107)
Living alone	0.002 (-0.063, 0.068)	-0.056 (-0.134, 0.021)	0.088 (0.056, 0.121)	0.050 (0.014, 0.086)

Table 2: Probit models for the exposure low income, by stroke type. Estimated regression parameters with 95% CIs in parentheses.

	ICH	IS
Intercept	1.296 (0.790, 1.802)	1.111 (0.856, 1.365)
Male	-0.632 (-0.698, -0.567)	-0.665 (-0.689, -0.640)
Age	-0.048 (-0.064, -0.033)	-0.046 (-0.054, -0.039)
Age ²	< 0.001 (<0.001, 0.001)	< 0.001 (<0.001, <0.001)
Atrial fibrillation	-0.051 (-0.136, 0.034)	-0.002 (-0.029, 0.025)
Diabetes	0.093 (0.001, 0.185)	0.101 (0.072, 0.131)
Smoking status		
Unknown	0.071 (-0.028, 0.170)	0.082 (0.034, 0.129)
Smoker	0.048 (-0.058, 0.153)	0.108 (0.074, 0.143)
Living alone	-0.078 (-0.146, -0.011)	-0.139 (-0.164, -0.113)

2 Models and results with adjustment for level of education

Table 3: Probit models for the mediator (lowered consciousness at hospital arrival) and the outcome (death 0-3 months after stroke) with adjustment for education level for patients with intracerebral hemorrhage (ICH) and ischemic stroke (IS). Estimated regression parameters with 95% CIs in parentheses.

	ICH		IS	
	Lowered consciousness	Death 0-3 months	Lowered consciousness	Death 0-3 months
Intercept	0.255 (-0.263, 0.773)	-1.761 (-2.476, -1.057)	0.168 (-0.159, 0.496)	-1.640 (-2.136, -1.144)
Low income	0.110 (0.042, 0.179)	0.021 (-0.060, 0.102)	0.052 (0.019, 0.086)	0.032 (-0.005, 0.068)
Lowered consciousness		1.368 (1.294, 1.442)		1.207 (1.167, 1.247)
Male	-0.150 (-0.217, -0.084)	0.028 (-0.051, 0.107)	-0.070 (-0.103, -0.037)	0.040 (0.003, 0.077)
Age	-0.023 (-0.039, -0.007)	-0.015 (-0.036, 0.006)	-0.058 (-0.068, -0.049)	-0.037 (-0.051, -0.024)
Age ²	< 0.001 (<0.001, <0.001)	< 0.001 (<0.001, <0.001)	< 0.001 (<0.001, 0.001)	< 0.001 (<0.001, 0.001)
Atrial fibrillation	0.046 (-0.038, 0.130)	0.257 (0.164, 0.351)	0.352 (0.319, 0.385)	0.222 (0.186, 0.258)
Diabetes	0.043 (-0.048, 0.134)	0.094 (-0.011, 0.198)	0.052 (0.013, 0.090)	0.147 (0.105, 0.188)
Smoking status				
Unknown	0.635 (0.539, 0.731)	0.560 (0.453, 0.667)	0.396 (0.343, 0.450)	0.409 (0.352, 0.466)
Smoker	0.027 (-0.077, 0.132)	0.096 (-0.031, 0.224)	0.016 (-0.032, 0.063)	0.050 (-0.007, 0.107)
Living alone	-0.007 (-0.073, 0.060)	-0.069 (-0.147, 0.009)	0.085 (0.052, 0.117)	0.046 (0.010, 0.083)
Education level				
Secondary school	-0.001 (-0.073, 0.071)	-0.062 (-0.145, 0.022)	-0.035 (-0.070, -0.001)	-0.060 (-0.097, -0.022)
University	0.001 (-0.088, 0.091)	-0.197 (-0.305, -0.089)	-0.078 (-0.124, -0.031)	-0.109 (-0.162, -0.056)

Table 4: Estimated total ($\widehat{TE}$), natural indirect ($\widehat{NIE}$) and direct effects ($\widehat{NDE}$) on the absolute risk difference scale (%) and proportion mediated (%), with adjustment for education level. 95% CIs in parentheses.

	$\widehat{TE}$	$\widehat{NIE}$	$\widehat{NDE}$	Proportion mediated ^a
ICH	2.2 (-0.1, 4.5)	1.7 (0.6, 2.8)	0.5 (-1.5, 2.5)	77.0
IS	0.7 (0.2, 1.3)	0.3 (0.1, 0.5)	0.5 (-0.1, 1.0)	39.5

^a $100 \times \widehat{NIE} / \widehat{TE}$