

Supplementary Table 1. Differences in HP CNV and rs2000999 genotype CROMIS versus ALSPAC, genotype frequency

	Hp1-1	Hp2-1	Hp2-2	Total	p-value overall
CROMIS	151 17.9%	413 49%	279 33.1%	843 100%	0.01
ALSPAC	137 14.8%	418 45.1%	372 40.1%	927 100%	
	rs2000999 AA	rs2000999 AG	rs2000999 GG		
CROMIS	29 3.5%	267 32.6%	523 63.9%	843 100%	0.47
ALSPAC	34 4.6%	229 30.6%	485 64.8%	748 100%	

Supplementary Table 2. Univariable analysis for functional outcome and death

Variable	Unfavourable outcome			Death		
	OR	95% CI	p-value	OR	95% CI	p-value
Age, years	1.05	1.03-1.06	<0.001	1.1	1.07-1.13	<0.001
Female Sex	2.3	1.69-3.14	<0.001	1.69	1.13-2.53	0.01
Ethnicity			0.71			
- White	Reference			Reference		0.89
- Asian	1.3	0.66-2.58		0.74	0.22-2.53	
- Black	1.16	0.5-2.66		0.99	0.4-2.43	
Smoker	0.83	0.61-1.12	0.21	1.2	0.79-1.8	0.39
Hypertension	1.79	1.31-2.45	<0.001	1.23	0.79-1.9	0.36
SBP on admission, mmHg	1	0.99-1.002	0.33	0.99	0.99-1	0.15
DM	1.48	0.98-2.26	0.06	1.5	0.91-2.48	0.11
Anti-hypertensive medication	1.45	1.07-1.97	0.02	1.76	1.17-2.65	0.01
Anticoagulation	1.41	1.03-1.94	0.03	1.78	1.18-2.68	0.006
Antiplatelets	1.33	0.93-1.89	0.11	1.04	0.65-1.66	0.86
Hypercholesterolaemia	1.57	1.15-2.14	0.004	1.09	0.72-1.66	0.67
GCS admission						
- GCS 3-8	4.41	1.52-12.78	0.006	5.51	2.6-11.64	<0.001
- GCS 9-15	Reference			Reference		

ICH location			0.63			
- Cerebellar	Reference			Reference		0.1
- Brainstem	1.35	0.4-4.55		0.34	0.04-3.08	
- Deep	0.77	0.39-1.52		0.82	0.33-2.07	
- Lobar	0.84	0.42-1.68		1.36	0.54-3.39	
crICH volume, mL	1.61	1.35-1.93	<0.001	1.88	1.52-2.34	<0.001
IV extension	2.38	1.64-3.45	<0.001	2.62	1.72-4	<0.001
crPHO volume, mL	1.39	1.17-1.66	<0.001	1.82	1.44-2.29	<0.001
OED, cm	1.32	0.68-2.54	0.41	2.76	1.23-6.17	0.01
Neurosurgery	2.99	1-8.94	0.05	1.23	0.41-3.72	0.71
HP CNV			0.63			0.15
- 1-1	Reference			Reference		
- 2-1	0.82	0.54-1.24		0.65	0.37-1.12	
- 2-2	0.84	0.54-1.3		0.96	0.55-1.65	
HP CNV 1 vs all 2	0.83	0.56-1.22	0.34	1.29	0.85-1.95	0.23
HP CNV all 1 vs 2	0.93	0.71-1.33	0.86	0.77	0.47-1.27	0.31
HP SNP			0.95			0.49
- A:A	Reference			Reference		
- A:G	0.88	0.38-2		0.91	0.32-2.54	
- G:G	0.9	0.4-2.02		0.71	0.26-1.96	

Cm = centimetre; CNV = copy number variation; crICH = cube root intracerebral haemorrhage; crPHO = cube root perihematoma oedema; DM = diabetes mellitus; GCS = Glasgow Coma Scale; HP = Haptoglobin; ICH = intracerebral haemorrhage; IV = intraventricular; ml = millilitre; mmHg = millimetre of mercury; OED = oedema extension distance; OR = Odds Ratio; SNP = single nucleotide polymorphism; y = year

Supplementary Table 3. Factors associated with 6 months mortality after ICH in an adjusted multivariable logistic regression model, HP CNV dichotomized

	OR	95% CI	P value
Age (years)	1.11	1.07-1.14	<0.001
Female Sex	1.15	0.69-1.94	0.6
Hypertension	0.98	0.56-1.72	0.95
Diabetes mellitus	1.33	0.65-2.69	0.43
Oral anticoagulation	1.27	0.75-2.13	0.37
GCS on admission (binary)	4.37	1.39-13.73	0.01
- GCS 3-8			
- GCS 9-15 (reference)			
ICH location			

- Cerebellar (reference)			0.39
- Brainstem	No observations		
- Deep	0.94	0.32-2.8	
- Lobar	0.62	0.2-1.93	
Cr ICH volume (mL)	1.99	1.45-2.74	<0.001
OED (cm)	3	1.07-8.39	0.04
IV extension	1.57	0.9-2.75	0.11
<i>HP CNV</i>			
- <i>HP1</i> allele (<i>HP1</i> -1/2-1 vs <i>HP2</i> -2)	0.55	0.31-0.95	0.03
<i>Rs2000999</i>			
- A:A (reference)			0.77
- A:G	0.61	0.16-2.4	
- G:G	0.61	0.16-2.41	

Cm = centimetre; CNV = copy number variation, Cr = cube root; CT = computed tomography; GCS = Glasgow Coma Scale; *HP* = Haptoglobin; ICH = intracerebral haemorrhage; IV = intraventricular; OAC = oral anticoagulation; SBP = systolic blood pressure

Supplementary Table 4. Univariable analysis for ICH and OED volume

Variable	ICH volume			OED volume		
	Coefficient	95% CI	p-value	Coefficient	95% CI	p-value
Time event to CT			0.5			0.13
- Day 1	Reference					
- Day 2	0.18	-0.12-0.48		0.07	0.001-0.15	
- Day 3	-0.17	-0.61-0.27		0.03	-0.09-0.15	
Age, years	0.004	-0.002-0.01	0.2	0.001	-0.001-0.002	0.25
Female Sex	0.05	-0.1-0.2	0.52	0.02	-0.01-0.06	0.19
Smoker	-0.03	-0.11-0.04	0.39	-0.008	-0.03-0.01	0.4
Hypertension	0.06	-0.1-0.22	0.45	-0.005	-0.04-0.03	0.77
SBP on admission, mmHg	-0.002	-0.004-0.0005	0.12	0.0003	-0.0005-0.0007	0.66
Anti-hypertensive medication	0.08	-0.07-0.23	0.29	-0.07	-0.1-0.03	<0.001
Anticoagulation	0.09	-0.06-0.25	0.25	-0.05	-0.09-(-0.01)	0.01
Antiplatelets	0.01	-0.16-0.18	0.89	-0.03	-0.07-0.02	0.21
High cholesterol	0.16	0.01-0.32	0.03	-0.006	-0.04-0.03	0.74
Platelet level, x10 ⁹ /liter	0.001	-0.0002-0.002	0.13	0.0003	0.0001-0.001	0.002
ICH location			<0.001			<0.001

- Cerebellar	Reference					
- Brainstem	-0.86	-1.34-(-0.37)		-0.09	-0.21-0.04	
- Deep	-0.19	-0.49-0.11		0.15	0.07-0.23	
- Lobar	0.67	0.37-0.97		0.23	0.15-0.31	
IV extension	0.46	0.29-0.62	<0.001	-0.03	-0.07-0.01	0.16
Neurosurgery	0.62	0.15-1.09	0.01	-0.003	-0.12-0.12	0.95
HP CNV			0.35			0.84
- 1-1	Reference					
- 2-1	0.11	-0.09-0.34		0.004	-0.05-0.06	
- 2-2	0.02	-0.2-0.24		-0.01	-0.06-0.05	
HP CNV all 1 vs 2-2	-0.07	-0.22-0.09	0.39	-0.01	-0.05-0.03	0.57
HP CNV all 2 vs 1-1	0.08	-0.12-0.28	0.42	-0.001	-0.05-0.05	0.96
HP SNP			0.82			0.98
- A:A	Reference					
- A:G	0.03	-0.39-0.45		-0.002	-0.1-0.1	
- G:G	0.08	-0.33-0.49		-0.005	-0.11-0.1	

CNV = copy number variation; *HP* = Haptoglobin; ICH = intracerebral haemorrhage; IV = intraventricular; OED = oedema extension distance; SBP = systolic blood pressure; SNP = single nucleotide polymorphism