SUPPLEMENTAL MATERIAL

Supplemental Methods: Control Identification Procedure for the ERICH Study
Our research design stressed the importance of gathering controls and cases from the same population to minimize referral bias and genetic heterogeneity. The Institute for Policy Research (IPR) at the University of Cincinnati and RTI International (Research Triangle Park, North Carolina) used random-digit-dial telephone survey methods to identify for each case one control of the same sex, race, ethnicity, and age (±5 years) from the same city/region where the cases resided. The IPR and RTI also included Spanish speaking call operators that allowed for identification of controls from Spanish-only speaking households. Each of the random digit dialing (RDD) samples of telephone numbers used in this study were purchased from Survey Sampling International (SSI) in Fairfield, Connecticut. Samples for each city/region were stored in separate databases specific to each city/region.

Three types of samples were utilized to identify potential respondents. IPR and RTI interviewers first attempted to reach potential controls at telephone numbers drawn using SSI's RDD landline sample methodology that spans the entire adult population. Because control identification in previous studies that used RDD methods has revealed difficulty in reaching both minority and older populations, two additional types of samples were potentially employed to assist in reaching harder-to-find controls as the study progressed: SSI's RDD ethnic density sampling (African-American and Hispanic respondents), and SSI's RDD age density sampling (older respondents); both used exchange density methodology to generate telephone numbers included in each sample. More information about these methodologies can be found at www.surveysampling.com/?q=en/respondents/.

As the study has progressed, it was apparent that the methods described above resulted in a low yield for some demographic categories. If attempts to identify control subjects through random digit dialing were unsuccessful, we sought "friend controls," in which we asked enrolled controls to suggest non-related "friends" who could meet the sex/race/ethnicity/age/region specifications for a needed control. The enrolled control was asked to provide the study coordinator's name and contact information to the potential "friend control," who could choose to contact the coordinator if interested in learning more about the study and possibly enrolling in the study. "Friend controls" who met demographic requirements were offered participation in the study.

SUPPLEMENTAL TABLES

	No Hypertension	Treated Hypertension	Untreated Hypertension	P-value
n	550	1195	825	
Average Age, years (SD)	61.0 (14.8)	65.4 (13.6)	58.9 (12.5)	<0.0001
Female, n (%)	258 (46.9)	532 (44.5)	344 (41.7)	0.1513
Race: n (%)				
Black	117 (13.4)	425 (48.9)	328 (37.7)	
Hispanic	170 (22.6)	309 (41.1)	273 (36.3)	
White	263 (27.7)	461 (48.6)	224 (23.6)	<0.0001
Heavy Alcohol Use, n (%)	49 (21.1)	75 (32.3)	108 (46.6)	<0.0001
Hypercholesterolemia, n (%)	103 (10.2)	654 (65.1)	248 (24.7)	<0.0001
Anticoagulant Use, n (%)	33 (14.5)	174 (76.3)	21 (9.2)	<0.0001
Education Level n (%)				
Less than High School	121 (19.6)	291 (47.1)	206 (33.3)	
High School	160 (19.3)	376 (45.3)	295 (35.5)	
Greater than High School	267 (24.4)	518 (47.3)	311 (28.4)	0.0035
Medical Insurance Status n (%)	380 (19.9)	1030 (54.0)	496 (26.0)	<0.0001
Location				
-Lobar n (%)	225 (28.2)	388 (48.7)	185 (23.2)	
-Deep n (%)	248 (18.2)	628 46.0)	488 (35.9)	
-Brainstem n (%)	18 (13.1)	59 (43.1)	60 (43.8)	
-Cerebellum n (%)	43 (21.0)	91 (44.4)	71 (34.6)	<0.0001
ICH Volume: Geometric Mean (95% CI)	12.4 (11.2, 13.8)	9.4 (8.7, 10.1)	10.6 (9.7, 11.5)	0.0001

eTable 1: Demographic Information for ICH Cases by Hypertension Status

	Whites OR (95% CI)	p-value	Blacks OR (95% CI)	p-value	Hispanics OR (95% CI)	p-value
All ICH						
Treated HTN	1.57 (1.24, 1.98)	<0.0001	3.02 (2.16, 4.22)	<0.0001	2.50 (1.73, 3.62)	<0.0001
Untreated HTN	8.79 (5.66, 13.66)	<0.0001	12.46 (8.08, 19.20)	<0.0001	10.95 (6.58, 18.23)	<0.0001
Deep ICH						
Treated HTN	2.13 (1.44, 3.15)	<0.0001	4.45 (2.76, 7.17)	<0.0001	2.28 (1.37, 3.80)	0.0016
Untreated HTN	18.98 (9.04, 39.87)	<0.0001	20.30 (10.99, 37.51)	<0.0001	16.51 (7.56, 36.07)	<0.0001
Lobar ICH						
Treated HTN	1.18 (0.85, 1.64)	0.3146	1.85 (1.01, 3.40)	0.0473	1.47 (0.83, 2.59)	0.1827
Untreated HTN	3.93 (2.10, 7.35)	<0.0001	9.21 (3.72, 22.77)	<0.0001	6.42 (2.75, 14.99)	<0.0001
Brainstem/Cerebellar ICH						
Treated HTN	1.53 (0.73, 3.19)	0.2589	2.28 (0.87, 5.97)	0.0925*	7.07 (2.02, 24.73)	0.0022
Untreated HTN	11.64 (2.76, 49.19)	0.0008	5.11 (1.83, 14.28)	0.0018*	38.47 (8.05, 183.75)	<0.0001

eTable 2: Multivariable Analyses: Treated and Untreated Hypertension as Risk Factors for ICH in Whites, Blacks, and Hispanics

Controlled for frequent alcohol use, hypercholesterolemia, education, medical insurance status, and anticoagulant use, and matched for age, ethnicity/race, sex, and metropolitan area.

*Controlled for all variables stated above with the exception of anticoagulant use.