Supplementary Online Content

Gaist D, Hald SM, García Rodríguez LA, et al. Association of prior intracerebral hemorrhage with major adverse cardiovascular events. *JAMA Netw Open*. 2022;5(10):e2234215. doi:10.1001/jamanetworkopen.2022.34215

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This supplementary material has been provided by the authors to give readers additional information about their work.

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**eMethods.**

**Creation of cohorts for present study based on data from previous study**

In a previous study\(^1\) we used the Danish Stroke Registry\(^2\) (Stroke Registry) to identify 16,765 patients with first-ever intracerebral hemorrhage (ICH) admitted in 2005-2018 in Denmark. We matched each of these cases on age, sex, and index date (date of admission of case) to 660,477 general population controls.\(^3\) The index date from the previous study is referred to here as inclusion date to avoid confusion with the nomenclature used in the nested case-control analysis planned as part of the present study (see main text). In the previous case-control study, we used risk-set sampling and controls were replaced after selection. This meant that individuals could be included as controls more than once and also that individuals sampled as controls could later become cases. In this study we defined the ICH-cohort and the comparison cohort to be mutually exclusive (i.e., individuals contributed only to one cohort). Therefore, we identified the chronologically first status of each individual and classified individuals accordingly as belonging to the ICH cohort or the comparison cohort (eFigure 1). In accordance with how we defined the source population (see main text), we excluded individuals aged <45 years on inclusion date (as ICH in this age-group is more likely to be non-spontaneous and ischemic events are less likely to occur in ICH survivors); and patients from the ICH-cohort who died within 30 days of their inclusion date (~30%) as well as patients from the comparison cohort who died within 30 days of their respective inclusion date (eFigure 1). For cohort members who survived the first 30 days, we ignored admissions with diagnosis codes corresponding to major vascular events recorded on day 0 to 30 post-inclusion date (i.e., we applied a 30-day blanking period). This was based on results of a previous validation study, where we found the positive predictive value (PPV) of a diagnosis of recurrent spontaneous symptomatic ICH (re-ICH) to be very low if the first 30-day period after an ICH is included. Conversely, if a 30-day blanking period is used, the PPV for re-ICH in DSR is high (90%) with an acceptable sensitivity (76%).\(^3\) Consequently, the start date for the present study was 31 days after the inclusion date.

**Assessment of exposure to medications**

Information on prescriptions dispensed at community pharmacies in Denmark has been prospectively recorded in the Danish National Prescription Registry\(^4\) (Prescription Registry) since 1995. For each prescription, the date of dispensing and a full account of the dispensed product, including the anatomical therapeutic chemical\(^5\) (ATC) code, are recorded. The indication and prescribed dose are not available in the Prescription Registry.

To calculate date of end of supply of each prescription, we set each prescription to last the number of days that corresponded to the number of pills dispensed (for dipyridamole, ticagrelor, dabigatran, apixaban, and all nonsteroidal anti-inflammatory drugs divided by a factor of 2; and for warfarin divided by a factor of 1.5\(^6\) ); however, for proton pump inhibitors (PPI) we instead used the defined daily dose\(^5\) (DDD; 1 DDD corresponds to 20 mg omeprazole, 40mg pantoprazole, 30mg lansoprazole, 20mg rabeprazole, 30mg esomeprazole).

After calculating the length of each supply as described above, we calculated episodes of treatment.

We did this based on prescriptions for drugs in the 10-year period up to inclusion date for the cohort analysis (eFigure 2). Between pairs of consecutive prescriptions, we allowed a grace period of 60 days between the end of supply of the first prescription of that pair and the date of the next prescription. Based on the most recent treatment episode before the inclusion date, we divided exposure by recency into current use (prescription supply covered the inclusion date or ended less than 30 days before the inclusion date), past use (prescription supply ended 31-365 days before inclusion date), and non-use (no recorded prescription, or prescription supply ended more than 365 days before inclusion date). A treatment episode for a drug or drug class comprised the length of consecutive prescriptions allowing for gaps between prescriptions of 60 days or less (grace period).

For the nested case-control analysis we used the same approach but with the index date as the reference point (as opposed to inclusion date in the cohort analysis) (eFigure 3). Using both the exposure history in the 10-year period before inclusion date and exposures to drugs during follow-up and based on the most recent treatment episode before the index date, we divided exposure by recency into current use (prescription supply covered the index date or ended less than 30 days before the index date), past use (prescription supply ended 31-365 days before index date), and non-use (no recorded prescription, or prescription supply ended more than 365 days before index date).

**Statistical analysis**

**Nested case-control analysis**

We performed subgroup analyses for sex, age (<75 years; ≥75 years), atrial fibrillation (AF), diabetes (DM), history of ischemic stroke (IS), history of major ischemic vascular event (including IS), and history of major ischemic vascular event other than IS. In these analyses, AF and DM were classified based on all available prior information, while history of major ischemic vascular events, IS, and ICH were classified based on information at baseline (cohort entry). For the subgroup analyses, we re-sampled cases and controls to achieve comparisons of e.g., cases with AF and controls with AF on index date. For the subgroup analyses, we used unconditional logistic regression and included the same covariates as in the main case-control analyses, in addition to covariates for sex, age (5-year bands), index date year (3-year bands), and duration of follow-up (4-year bands).

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eTable 1. Diagnosis and Procedure Codes for Study Covariates Identified in Danish National Patient Registry or Danish National Prescription Registry as Specified

| Diagnosis code (ICD-10) or procedure code (sksube) from Danish National Patient Registry (unless otherwise specified) | Drug (ATC) code |
|---|---|
| **Primary outcomes** |
| For diagnosis codes inpatient hospital contacts with primary position codes only (unless otherwise specified) |
| 1. Ischemic stroke | I63 [in Danish Stroke Registry] |
| 2. Intracerebral hemorrhage | I61 [in Danish Stroke Registry] |
| 3. Myocardial infarction | I21, I22, I23 |
| 4. Major vascular event | |
| 4a. Stroke |
| 4a1. Ischemic stroke | I63 [in Danish Stroke Registry] |
| 4a2. Intracerebral hemorrhage | I61 [in Danish Stroke Registry] |
| 4a3. Stroke of unspecified type | I64 [in Danish Stroke Registry] |
| 4b. Myocardial infarction | I21, I22, I23 |
| 4c. Systemic embolism | I74 |
| 4d. Vascular death – Death within 30 days if a hospital admission for one or more of the following events: |
| 4d1. Stroke |
| 4d1a. Intracerebral hemorrhage | I61 [in Danish Stroke Registry] |
| 4d1b. Ischemic stroke | I63 [in Danish Stroke Registry] |
| 4d1c. Stroke of unspecified type | I64 [in Danish Stroke Registry] |
| Any of the following non-stroke events: |
| 4d2. Intracranial extraaxial hemorrhage |
| 4d2a. Subdural hematoma | S065, I620 |
| 4d2b. Subarachnoid hemorrhage | I60 |
| 4d2c. Epidural hematoma | I621 |
| 4d2d. Intracranial unspecified | I629 |
| 4d3. Myocardial infarction | I21, I22, I23 |
| 4d4. Systemic embolism | I74 |
| 4d5. Revascularization procedures | |
| 4d5a. Thrombolysis (any organ)\(^1\) | BOHA1 (sksube) |
|-------------------------------------|----------------|
| 4d5b. Percutaneous coronary intervention\(^1\) [includes stenting] | KFNG, KFNF (sksube) |
| 4d5c. Coronary artery bypass grafting | KFNA, KFNB, KFNC, KFND, KFNE, KFNH20 (sksube) |
| 4d5d. Carotid artery procedures (includes all arteries derived from aortic arch and its branches)\(^2\) | KPAF (endarterectomy), KPAE (thrombectomy) (sksube) |
| 4d4e. Visceral artery, thrombectomy/embolectomy (mesenteric, renal, visceral)\(^2\) | KPCE, KPCF (sksube) |
| 4d4f. Lower limb revascularization\(^3\) (thrombectomy/embolectomy, stents, bypass surgery etc) | KPDE, KPDF, KPDH, KPDN, KPDP, KPQ, KPEE, KPEF, KPEH, KPEN, KPEP, KPEQ, KPEF, KPFH, KPFN, KPFP, KPFQ, KPDU74, KPDU84 (sksube) |
| 4d6. Mesenteric ischemia | K550E K550H |
| 4d7. Sudden cardiac death | I461 |
| 4d8. Venous thromboembolism (DVT/PE) | I26, I801, I802, I803, I808, I809 |
| 4d9. Extracranial hemorrhage | |
| 4d9a. Gastrointestinal bleed (upper, lower, or unspecified) | K228F, K250, K252, K254, K256, K260, K262, K638B, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K290, K298A, K625, K638B, K638C, K290-K292, K920, K921, K922 |
| 4d9b. Esophageal varicose vein hemorrhage or esophageal hemorrhage | I850, I864A, K228F |
| 4d9c. Hematuria | N02, R31 |
| 4d9d. Hemopericardium | I312 |
| 4d9e. Peritoneal hemorrhage | K661 |
| 4d9f. Hemothorax | J942 |
| 4d9g. Hemorrhage in bile duct or pancreas | K838F, K868G |
| 4d9h. Hemorrhage in spinal cord | G951A |
| 4d9i. Acute bleeding anemia | D62 |

**Secondary outcomes**
| For diagnosis codes inpatient hospital contacts with primary position codes only (unless otherwise specified) |
|---------------------------------------------------------------|
| 1. Stroke                                                     |
| 1a. Ischemic stroke                                           | I63 [in Danish Stroke Registry] |
| 1b. Intracerebral hemorrhage                                  | I61 [in Danish Stroke Registry] |
| 1c. Stroke of uncertain type                                  | I64 [in Danish Stroke Registry] |
| 2. Intracranial extraaxial hemorrhage                         |
| 2a. Subdural                                                  | S065, I620 |
| 2b. Subarachnoid                                              | I60 |
| 2c. Epidural                                                  | I621 |
| 2d. Intracranial unspecified                                  | I629 |
| 3. Systemic embolism                                          | I74 |
| 4. Mesenteric ischemia                                        | K550E K550H |
| 5. Venous thromboembolism (DVT or PE)                         | I26, I801, I802, I803, I808, I809 |
| 6. Extracranial hemorrhage                                    |
| 6a. Gastrointestinal bleed (upper, lower, or unspecified)     | K228F, K250, K252, K254, K256, K260, K262, K638B, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K290, K298A, K625, K638B, K638C, K290-K292, K920, K921, K922 |
| 6b. Esophageal varicose vein hemorrhage or esophageal hemorrhage | I850, I864A, K228F |
| 6c. Hematuria                                                 | N02, R31 |
| 6d. Hemopericardium                                           | I312 |
| 6e. Peritoneal hemorrhage                                     | K661 |
| 6f. Hemothorax                                                | J942 |
| 6g. Hemorrhage in bile duct or pancreas                      | K838F, K868G |
| 6h. Hemorrhage in spinal cord                                 | G951A |
| 6i. Acute bleeding anemia                                    | D62 |
| 7. Sudden cardiac death                                       | I461 |
| 8. Major adverse cardiovascular event                         |
| 8a. Ischemic stroke                                           | I63 [in Danish Stroke Registry] |
| 8b. Stroke of uncertain type                                  | I64 [in Danish Stroke Registry] |
| Code   | Description                                                                 | ICD Codes |
|--------|-----------------------------------------------------------------------------|-----------|
| I21, I22, I23 | Myocardial infarction | 8c. Myocardial infarction |  
| I74 | Systemic embolism | 8d. Systemic embolism |  
| BOHA1 | Thrombolysis (any organ)¹ | 8e1. Thrombolysis (any organ)¹ |  
| KFNG, KFNF | Percutaneous coronary intervention¹ [includes stenting] | 8e2. Percutaneous coronary intervention¹ [includes stenting] |  
| KFNA, KFN, KFNC, KFND, KFNE, KFNH20 (DNPR, sksube) | Coronary artery bypass grafting | 8e3. Coronary artery bypass grafting |  
| KPAF (endarterectomy), KPAE (thrombectomy) (sksube) | Carotid artery procedures (includes all arteries derived from aortic arch and its branches)² | 8e4. Carotid artery procedures (includes all arteries derived from aortic arch and its branches)² |  
| KPCE, KPCF (sksube) | Visceral artery, thrombectomy/embolectomy (mesenteric, renal, visceral)² | 8e5. Visceral artery, thrombectomy/embolectomy (mesenteric, renal, visceral)² |  
| KPDE, KPDF, KPDH, KPDN, KPDP, KPDQ, KPEE, KPEF, KPEH, KPEN, KPEP, KPEQ, KPFE, KPFH, KPFN, KFPF, KPFQ, KPDU74, KPDU84 (sksube) | Lower limb revascularization³ (thrombectomy/embolectomy, stents, bypass surgery etc) | 8e6. Lower limb revascularization³ (thrombectomy/embolectomy, stents, bypass surgery etc) |  
| K550E K550H | Mesenteric ischemia | 8f. Mesenteric ischemia |  
| I26, I801, I802, I803, I808, I809 ( | Venous thrombosis (DVT or PE) | 8g. Venous thrombosis (DVT or PE) |  
| I461 | Sudden cardiac death | 8h. Sudden cardiac death |  
| I61 [in Danish Stroke Registry] | Major hemorrhagic vascular event | 9. Major hemorrhagic vascular event |  
| I61 [in Danish Stroke Registry] | ICH | 9a. ICH |  
| N02, R31 | Extracranial hemorrhage | 9b. Extracranial hemorrhage |  
| K228F, K250, K252, K254, K256, K260, K262, K638B, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K290, K298A, K625, K638B, K638C, K290-K292, K920, K921, K922 | Gastrointestinal bleed (upper, lower, or unspecified) | 9b1. Gastrointestinal bleed (upper, lower, or unspecified) |  
| I850, I864A, K228F | Esophageal varicose vein hemorrhage or esophageal hemorrhage | 9b2. Esophageal varicose vein hemorrhage or esophageal hemorrhage |  
| N02, R31 | Hematuria | 9b3. Hematuria |  
| I312 | Hemopericardium | 9b4. Hemopericardium |  
| K661 | Peritoneal hemorrhage | 9b5. Peritoneal hemorrhage |  
| J942 | Hemothorax | 9b6. Hemothorax |  

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| 9b7. Hemorrhage in bile duct or pancreas | K838F, K868G |
| 9b8. Hemorrhage in spinal cord | G951A |
| 9b9. Acute bleeding anemia | D62 |
| 9c. Intracranial extraaxial hemorrhage | |
| 9c1. Subdural | S065, I620 |
| 9c2. Subarachnoid | I60 |
| 9c3. Epidural | I621 |
| 9c4. Intracranial unspecified | I629 |
| 10. Major adverse cardiovascular event | |
| 10a. Ischemic stroke | I63 [in Danish Stroke Registry] |
| 10b. Stroke of uncertain type | I64 [in Danish Stroke Registry] |
| 10c. Myocardial infarction | I21, I22, I23 |
| 10d. Systemic embolism | I74 |
| 10e. Revascularization procedures | |
| 10e1. Thrombolysis (any organ)¹ | BOHA1 (sksube) |
| 10e2. Percutaneous coronary intervention¹ [includes stenting] | KFNG, KFNF (sksube) |
| 10e3. Coronary artery bypass grafting | KFNA, KFNB, KFNC, KFND, KFNE, KFNH20 (sksube) |
| 10e4. Carotid artery procedures (includes all arteries derived from aortic arch and its branches)² | KPAF (endarterectomy), KPAE (thrombectomy) (sksube) |
| 10e5. Visceral artery, thrombectomy/embolectomy (mesenteric, renal, visceral)² | KPCE, KPCF (sksube) |
| 10e6. Lower limb revascularization³ (thrombectomy/embolectomy, stents, bypass surgery etc) | KPDE, KPDF, KPDH, KPDN, KPDP, KPDQ, KPEE, KPEF, KPEH, KPEN, KPEP, KPEQ, KPFE, KPFH, KPFN, KPFP, KPFQ, KPDU74, KPDU84 (sksube) |
| 10f. Mesenteric ischemia | K550E K550H |
| 10g. Sudden cardiac death | I461 |
| 11. All-cause death | |
| 12. Vascular death – Death within 30 days of hospital admission for one or more of the following events: | |
| 12a. Stroke       |                              |
|------------------|------------------------------|
| 12a1. Intracerebral hemorrhage | I61 [in Danish Stroke Registry] |
| 12a2. Ischemic stroke | I63 [in Danish Stroke Registry] |
| 12a3. Stroke of uncertain type | I64 [in Danish Stroke Registry] |

Any of the following non-stroke events:

| 12b. Intracranial extraaxial hemorrhage |                              |
|----------------------------------------|------------------------------|
| 12b1. Subdural                         | S065, I620                   |
| 12b2. Subarachnoid                     | I60                          |
| 12b3. Epidural                         | I621                         |
| 12b4. Intracranial unspecified         | I629                         |

12c. Myocardial infarction

| 12d. Systemic embolism                 | I74                          |

12e. Revascularization procedures

| 12e1. Thrombolysis (any organ)¹       | BOHA1 (sksube)               |
| 12e2. Percutaneous coronary intervention¹ [includes stenting] | KFNG, KFNF (sksube) |
| 12e3. Coronary artery bypass grafting | KFNA, KFN, KFNC, KFND, KFNE, KFNH20 (sksube) |
| 12e4. Carotid artery procedures (includes all arteries derived from aortic arch and its branches)² | KPAF (endarterectomy), KPAE (thrombectomy) (sksube) |
| 12e5. Visceral artery, thrombectomy/embolectomy (mesenteric, renal, visceral)² | KPCE, KPCF (sksube) |
| 12e6. Lower limb revascularization³ (thrombectomy/embolectomy, stents, bypass surgery etc) | KPDE, KPDF, KPDH, KPDN, KPD, KPDO, KPEE, KPEF, KPEH, KPEI, KPEJ, KPEK, KPFL, KPFP, KPFAQ, KPDU74, KPDU84 (sksube) |

12f. Mesenteric ischemia

| 12g. Sudden cardiac death              | I461                         |

12h. Venous thromboembolism (DVT or PE)

| 12i. Extracranial hemorrhage           |                              |
|----------------------------------------|------------------------------|
| 12i1. Gastrointestinal bleed (upper, lower, or unspecified) | K228F, K250, K252, K254, K256, K260, K262, K638B, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K290, K298A, |

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| Diagnosis Code | Description |
|---------------|-------------|
| K625, K638B, K638C, K290-K292, K920, K921, K922 | K625, K638B, K638C, K290-K292, K920, K921, K922 |
| I850, I864A, K228F | 12i2. Esophageal varicose vein hemorrhage or esophageal hemorrhage |
| N02, R31 | 12i3. Hematuria |
| I312 | 12i4. Hemopericardium |
| K661 | 12i5. Peritoneal hemorrhage |
| J942 | 12i6. Hemothorax |
| K838F, K868G | 12i7. Hemorrhage in bile duct or pancreas |
| G951A | 12i8. Hemorrhage in spinal cord |
| D62 | 12i9. Acute bleeding anemia |

13. Non-vascular death (death not classified as vascular death)

**Covariates – Disorders**

*For diagnosis codes: Inpatient or outpatient, primary or secondary position (unless otherwise specified)*

| Covariate | Description |
|-----------|-------------|
| I10-I15 | Hypertension |
| C03A, C08CA, C08DB01, C09A, C09B, C09C, C09D | |
| I63 [in Danish Stroke Registry] | Ischemic stroke |
| I21, I22, I23 | Myocardial infarction |
| I74 | Systemic embolism |
| I702, I739 | Peripheral arterial disease |
| I26, I801, I802, I803, I808, I809 | Venous thromboembolism (DVT/PE) |
| E10-E14 | Diabetes |
| A10 | |
| N18 (excluding N181), N19, Z992, Z940 | Chronic kidney failure |
| K71-K77 | Chronic hepatic diseases |
| I48 | Atrial fibrillation |
| I110, I130, I132, I420, I426, I427, I428, I429, I50 | Congestive heart failure |
| C00-C97 (C44 not included) | Cancer |
| E244, F10, G312, G621, G721, I426, K292, K70, K860, T510, T519, Z502, Z714, Z721, N07BB | Disorders/events or drug use indicative of alcohol misuse |
| Chronic obstructive pulmonary disorder (COPD) | J42, J42, J44 | R03 [in subjects aged 45+ years] |
|---------------------------------------------|----------------|----------------------------------|

### Covariates – use of medications

#### Antiplatelet drugs

| Aspirin – low dose | B01AC06 – acetylsalicylic acid (75 mg, 100 mg, or 150 mg per tablet) | B01AC30 - acetylsalicylic acid (50 mg per tablet) in combination with dipyridamole |
|--------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Clopidogrel         | B01AC04 (75 mg per tablet)                                           |                                                                               |
| Dipyridamole        | B01AC07 (100 mg per tablet, or 200 mg per tablet)                   |                                                                               |
| Other ADP-receptor blockers | B01AC22 – prasugrel (5 mg, or 10 mg per tablet) | B01AC24 – ticagrelor (60 mg, or 90 mg per tablet) |

#### Anticoagulant drugs

| Vitamin K antagonists | B01AA |
|-----------------------|-------|
| Direct oral anticoagulants (DOAC) | |
| Dabigratran           | B01AE07 |
| Rivaroxaban           | B01AF01 |
| Apixaban              | B01AF02 |
| Edoxaban              | B01AF03 |

#### Drugs with antihypertensive effects

| Thiazides and other non-loop diuretics | C03A, C03D, C03E |
|---------------------------------------|-----------------|
| Loop diuretics                        | C03C            |
| Beta-blockers                         | C07             |
| Calcium channel blockers              | C08             |
| ACE inhibitors and Angiotensin II receptor blockers (plain or in combinations) | C09A, C09B, C09C, C09D |

#### Statins

| Statins | C10AA |
| Drug Class                      | ATC Code                |
|--------------------------------|-------------------------|
| Selective serotonin reuptake inhibitors | N06AB                   |
| Nonsteroidal anti-inflammatory drugs | M01A (including Cox2 inhibitors), excluding M01AX |
| Proton pump inhibitors          | A02BC                   |

*Indication for drug use not available; some of the drugs may have been used for indications other than hypertension. Note that ‘ever use’ of some of these drugs was included in the definition of the hypertension covariate (i.e., C03A, C08CA, C08DB01, C09A, C09B, C09C, C09D).
### eTable 2. Crude Incidence Rates of Primary Outcomes During Follow-up, Overall and Stratified by Baseline Comorbidities

| Baseline characteristic/comorbidity | Ischemic stroke | Myocardial infarct | Intracerebral hemorrhage | Major adverse cardiovascular events¹ |
|-------------------------------------|-----------------|-------------------|--------------------------|--------------------------------------|
|                                     | Person-years    | No. of events     | Event rate per 100 pyrs  | Person-years | No. of events | Event rate per 100 pyrs | Person-years | No. of events | Event rate per 100 pyrs |
| All                                 |                 |                   |                          |            |              |                          |              |              |                          |
| ICH-cohort                          | 37,482          | 571               | 1.52 (1.40-1.65)         | 37,482      | 194          | 0.52 (0.45-0.60)         | 37,482      | 538          | 1.44 (1.32-1.56)         |
| Comparison cohort                   | 2,216,351       | 12,416            | 0.56 (0.55-0.57)         | 2,216,351   | 10,669       | 0.48 (0.47-0.49)         | 2,216,351   | 1,377        | 0.06 (0.06-0.07)         |
| Male sex                            |                 |                   |                          |            |              |                          |              |              |                          |
| ICH-cohort                          | 20,829          | 319               | 1.53 (1.37-1.71)         | 20,829      | 119          | 0.57 (0.48-0.68)         | 20,829      | 266          | 1.28 (1.13-1.44)         |
| Comparison cohort                   | 1,193,409       | 6,881             | 0.58 (0.56-0.59)         | 1,193,409   | 6,933        | 0.58 (0.57-0.59)         | 1,193,409   | 707          | 0.06 (0.06-0.06)         |
| Female sex                          |                 |                   |                          |            |              |                          |              |              |                          |
| ICH-cohort                          | 16,654          | 252               | 1.51 (1.34-1.71)         | 16,654      | 75           | 0.45 (0.36-0.56)         | 16,654      | 272          | 1.63 (1.45-1.84)         |
| Comparison cohort                   | 1,022,943       | 5,535             | 0.54 (0.53-0.56)         | 1,022,943   | 3,736        | 0.37 (0.35-0.38)         | 1,022,943   | 670          | 0.07 (0.06-0.07)         |
| Age 45-59 years                     |                 |                   |                          |            |              |                          |              |              |                          |

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|                        | Ischemic stroke | Myocardial infarct | Intracerebral hemorrhage | Major adverse cardiovascular events $^1$ |
|------------------------|-----------------|--------------------|--------------------------|----------------------------------------|
| ICH-cohort             | 10,047          | 100                | 1.00 (0.82-1.21)         | 10,047                                 |
|                        | 43              | 0.43 (0.32-0.58)   | 75 (0.60-0.94)           | 9,999 (2.18-2.80)                      |
| Comparison cohort      | 499,588         | 1,029              | 0.26 (0.25-0.27)         | 499,588                                 |
|                        | 1,298           | 0.02 (0.02-0.02)   | 97 (0.02-0.02)           | 499,025 (0.52-0.56)                    |
| Age 60-74 years        |                 |                    |                          |                                        |
| ICH-cohort             | 17,160          | 248                | 1.45 (1.28-1.64)         | 17,160                                 |
|                        | 77              | 0.45 (0.36-0.56)   | 247 (1.27-1.63)          | 17,010 (3.57-4.16)                     |
| Comparison cohort      | 966,747         | 4,791              | 0.50 (0.48-0.51)         | 966,747                                 |
|                        | 4,317           | 0.45 (0.43-0.46)   | 481 (0.05-0.05)          | 964,582 (1.13-1.18)                    |
| Age 75-84 years        |                 |                    |                          |                                        |
| ICH-cohort             | 8,118           | 178                | 2.19 (1.89-2.54)         | 8,118                                  |
|                        | 54              | 0.67 (0.51-0.87)   | 176 (1.87-2.51)          | 8,048 (5.83-6.94)                      |
| Comparison cohort      | 564,451         | 4,885              | 0.87 (0.84-0.89)         | 564,451                                 |
|                        | 3,818           | 0.68 (0.66-0.70)   | 625 (0.10-0.12)          | 562,369 (2.05-2.12)                    |
| Age 85+ years          |                 |                    |                          |                                        |
| ICH-cohort             | 2,157           | 45                 | 2.09 (1.56-2.79)         | 2,157                                  |
|                        | 20              | 0.93 (0.60-1.44)   | 40 (1.36-2.53)           | 2,152 (5.21-7.33)                      |
| Comparison cohort      | 185,566         | 1,711              | 0.92 (0.88-0.97)         | 185,566                                 |
|                        | 1,236           | 0.67 (0.63-0.70)   | 174 (0.08-0.11)          | 184,963 (2.22-2.36)                    |
|                        | Ischemic stroke | Myocardial infarct | Intracerebral hemorrhage | Major adverse cardiovascular events¹ |
|------------------------|-----------------|--------------------|--------------------------|---------------------------------------|
| **Atrial Fibrillation²** |                 |                    |                          |                                       |
| Yes                    |                 |                    |                          |                                       |
| ICH-cohort             | 4,015           | 114                | 2.84                     | (2.36-3.41)                           |
|                        |                 | 4,015              | 30                       | 0.75                                  | (0.52-1.07)                           |
|                        |                 |                    | 4,015                    | 59                                    | 1.47                                  | (1.14-1.90)                           |
|                        |                 |                    |                          |                                       | 3,947                                 | 251                                   | 6.36                                  | (5.62-7.20)                           |
| Comparison cohort      | 133,293         | 1,254              | 0.94                     | (0.89-0.99)                           |
|                        |                 | 133,293            | 845                      | 0.63                                  | (0.59-0.68)                           |
|                        |                 |                    | 133,293                  | 167                                   | 0.13                                  | (0.11-0.15)                           |
|                        |                 |                    |                          |                                       | 132,759                               | 3,028                                 | 2.28                                  | (2.20-2.36)                           |
| No                     |                 |                    |                          |                                       |                                       |                                       |                                       |                                       |
| ICH-cohort             | 33,467          | 457                | 1.37                     | (1.25-1.50)                           |
|                        |                 | 33,467             | 164                      | 0.49                                  | (0.42-0.57)                           |
|                        |                 |                    | 33,467                   | 479                                   | 1.43                                  | (1.31-1.57)                           |
|                        |                 |                    |                          |                                       | 33,261                                | 1,296                                 | 3.90                                  | (3.69-4.11)                           |
| Comparison cohort      | 2,083,059       | 11,162             | 0.54                     | (0.53-0.55)                           |
|                        |                 | 2,083,059          | 9,824                    | 0.47                                  | (0.46-0.48)                           |
|                        |                 |                    | 2,083,059                | 1,210                                 | 0.06                                  | (0.05-0.06)                           |
|                        |                 |                    |                          |                                       | 2,078,180                             | 26,752                                | 1.29                                  | (1.27-1.30)                           |
| **Hx of Ischemic stroke²** |                 |                    |                          |                                       |
| Yes                    |                 |                    |                          |                                       |
| ICH-cohort             | 4,400           | 118                | 2.68                     | (2.24-3.21)                           |
|                        |                 | 4,400              | 19                       | 0.43                                  | (0.28-0.68)                           |
|                        |                 |                    | 4,400                    | 61                                    | 1.39                                  | (1.08-1.78)                           |
|                        |                 |                    |                          |                                       | 4,351                                 | 234                                   | 5.38                                  | (4.73-6.11)                           |
| Comparison cohort      | 54,227          | 782                | 1.44                     | (1.34-1.55)                           |
|                        |                 | 54,227             | 329                      | 0.61                                  | (0.54-0.68)                           |
|                        |                 |                    | 54,227                   | 85                                    | 0.16                                  | (0.13-0.19)                           |
|                        |                 |                    |                          |                                       | 53,894                                | 1,495                                 | 2.77                                  | (2.64-2.92)                           |
| No                     |                 |                    |                          |                                       |                                       |                                       |                                       |                                       |

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|                        | ICH-cohort | Comparison cohort | ICH-cohort | Comparison cohort | ICH-cohort | Comparison cohort | ICH-cohort | Comparison cohort | ICH-cohort | Comparison cohort |
|------------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|
|                        | 33,083     | 2,162,124         | 33,083     | 2,162,124         | 33,083     | 2,162,124         | 33,083     | 2,162,124         | 33,083     | 2,162,124         |
| Ischemic stroke        | 453        | 11,634            | 175        | 10,340            | 477        | 1,292             | 175        | 1,060             | 477        | 1,292             |
| Myocardial infarct     | 1.37       | 0.54              | 0.53       | 0.48              | 1.44       | 0.06              | 0.53       | 0.48              | 1.44       | 0.06              |
| Intracerebral hemorrhage| 0.46-0.61  | 0.47-0.49         | 0.46-0.61  | 0.47-0.49         | 1.32-1.58  | 0.06-0.06         | 0.46-0.61  | 0.47-0.49         | 1.32-1.58  | 0.06-0.06         |
| Major adverse cardiovascular events | 32,857 | 2157,045 | 1,313 | 28,285 | 32,857 | 2157,045 | 1,313 | 28,285 |
|                        | 4.00       | 1.31              | 4.00       | 1.31              | 4.00       | 1.31              | 4.00       | 1.31              |
|                        | (3.79-4.22)| (1.30-1.33)       | (3.79-4.22)| (1.30-1.33)       | (3.79-4.22)| (1.30-1.33)       | (3.79-4.22)| (1.30-1.33)       |
| Diabetes²              |            |                   |            |                   |            |                   |            |                   |
| Yes                    |            |                   |            |                   |            |                   |            |                   |
| ICH-cohort             | 3,916      | 192,541           | 3,916      | 192,541           | 3,916      | 192,541           | 3,916      | 192,541           | 3,916      | 192,541           |
|                        | 69         | 1,488             | 29         | 1,533             | 54         | 134               | 54         | 134               | 54         | 134               |
|                        | 1.76       | 0.77              | 0.74       | 0.80              | 1.38       | 0.07              | 1.38       | 0.07              | 1.38       | 0.07              |
|                        | (1.39-2.23)| (0.73-0.81)       | (0.51-1.07)| (0.76-0.84)       | (1.06-1.80)| (0.06-0.08)       | (1.06-1.80)| (0.06-0.08)       | (1.06-1.80)| (0.06-0.08)       |
| Comparison cohort      | 192,541    | 192,541           | 192,541    | 192,541           | 191,947    | 3,927             | 191,947    | 3,927             | 191,947    | 3,927             |
|                        | 2.05       |                   | 2.05       |                   | 2.05       |                   | 2.05       |                   | 2.05       |                   |
|                        | (1.98-2.11)|                   | (1.98-2.11)|                   | (1.98-2.11)|                   | (1.98-2.11)|                   | (1.98-2.11)|                   |
| Diabetes²              |            |                   |            |                   |            |                   |            |                   |
| No                     |            |                   |            |                   |            |                   |            |                   |
| ICH-cohort             | 33,567     | 2,023,810         | 33,567     | 2,023,810         | 33,567     | 2,023,810         | 33,567     | 2,023,810         | 33,567     | 2,023,810         |
|                        | 502        | 10,928            | 165        | 9,136             | 484        | 1,243             | 165        | 9,136             | 484        | 1,243             |
|                        | 1.50       | 0.54              | 0.49       | 0.45              | 1.44       | 0.06              | 0.49       | 0.45              | 1.44       | 0.06              |
|                        | (1.37-1.63)| (0.53-0.55)       | (0.42-0.57)| (0.44-0.46)       | (1.32-1.58)| (0.06-0.06)       | (0.42-0.57)| (0.44-0.46)       | (1.32-1.58)| (0.06-0.06)       |
| Comparison cohort      | 2,023,810  | 2,023,810         | 2,023,810  | 2,023,810         | 2,018,992  | 25,853            | 2,023,810  | 2,023,810         | 2,018,992  | 25,853            |
|                        | 1.28       |                   | 1.28       |                   | 1.28       |                   | 1.28       |                   | 1.28       |                   |
|                        | (1.26-1.30)|                   | (1.26-1.30)|                   | (1.26-1.30)|                   | (1.26-1.30)|                   | (1.26-1.30)|                   |
| Chronic kidney failure²|            |                   |            |                   |            |                   |            |                   |
| Yes                    |            |                   |            |                   |            |                   |            |                   |
| ICH-cohort             | 453        |                   | 453        |                   | 453        |                   | 453        |                   | 453        |                   |
|                        | 14         |                   | 7          |                   | 12         |                   | 7          |                   | 12         |                   |
|                        | 3.09       |                   | 1.54       |                   | 2.65       |                   | 1.54       |                   | 2.65       |                   |
|                        | (0.53-0.55)|                   | (0.44-0.46)|                   | (0.44-0.46)|                   | (0.44-0.46)|                   | (0.44-0.46)|                   |
| Condition                        | Comparison cohort | No ICH cohort | ICH-cohort | Comparison cohort | No ICH cohort | ICH-cohort | Comparison cohort | No ICH cohort | ICH-cohort | Comparison cohort | No ICH cohort |
|--------------------------------|------------------|---------------|------------|------------------|---------------|------------|------------------|---------------|------------|------------------|---------------|
|                                |                  | (1.83-5.21)   | (0.74-3.24) | (1.50-4.66)      | (6.69-12.33)  |
| Ischemic stroke                | 20,424           | 13            | 20,424     | 198              | 20,424        | 13         | 20,360           | 497           | 2.44       | (2.24-2.67)      |
| Myocardial infarct             | 0.65             | (0.55-0.77)   | 0.97       | (0.84-1.11)      | 0.06          | (0.04-0.11) |                  |               |            |                  |
| Intracerebral hemorrhage       | 20,424           | 13            | 37,029     | 187              | 37,029        | 526        | 36,756           | 1,506         | 4.10       | (3.90-4.31)      |
| Major adverse cardiovascular   |                  |               |            |                  |               |            |                  |               |            |                  |
| events\(^1\)                  | 20,424           | 13            | 37,029     | 187              | 37,029        | 526        | 36,756           | 1,506         | 4.10       | (3.90-4.31)      |
| Chronic hepatic disease\(^2\) |                  |               |            |                  |               |            |                  |               |            |                  |
|                                | 2,195,927        | 12,283        | 2,195,927  | 10,471           | 2,195,927     | 1,364      | 2,190,579        | 29,283        | 1.34       | (1.32-1.35)      |
|                                | 0.56             | (0.55-0.57)   | 0.48       | (0.47-0.49)      | 0.06          | (0.06-0.07) |                  |               |            |                  |
| COPD\(^2,3\)                  |                  |               |            |                  |               |            |                  |               |            |                  |
|                                | 2,204,136        | 12,348        | 2,204,136  | 10,606           | 2,204,136     | 1,370      | 2,198,752        | 29,584        | 1.35       | (1.33-1.36)      |
|                                | 0.56             | (0.55-0.57)   | 0.48       | (0.47-0.49)      | 0.06          | (0.06-0.07) |                  |               |            |                  |

\(^1\) Adjusted for age, sex, race, and year of diagnosis.  
\(^2\) Excluding cardiovascular disease (CAD), peripheral arterial disease (PAD), diabetes, and chronic kidney disease (CKD).  
\(^3\) Chronic obstructive pulmonary disease (COPD).
|                | Ischemic stroke | Myocardial infarct | Intracerebral hemorrhage | Major adverse cardiovascular events<sup>1</sup> |
|----------------|-----------------|-------------------|--------------------------|-----------------------------------------------|
| **Yes**        |                 |                   |                          |                                               |
| ICH-cohort     | 7,499           | 133               | 1.77 (1.50-2.10)         | 0.64 (0.48-0.85)                             |
|                | 7,499           | 48                |                           | 7,499                                        |
|                | 110             | 1.47 (1.22-1.77)  |                           | 7,447                                        |
|                | 353             | 4.74 (4.27-5.26)  |                           |                                               |
| Comparison     | 426,751         | 2,563             | 0.60 (0.58-0.62)         | 0.58 (0.56-0.61)                             |
| cohort         | 426,751         | 2,495             |                           | 426,751                                      |
|                | 299             | 0.07 (0.06-0.08)  |                           | 425,459                                      |
|                | 6,751           | 1.59 (1.55-1.63)  |                           |                                               |
| **No**         |                 |                   |                          |                                               |
| ICH-cohort     | 29,984          | 438               | 1.46 (1.33-1.60)         | 0.49 (0.41-0.57)                             |
|                | 29,984          | 146               |                           | 29,984                                      |
|                | 428             | 1.43 (1.30-1.57)  |                           | 29,761                                      |
|                | 1194            | 4.01 (3.79-4.25)  |                           |                                               |
| Comparison     | 1,789,600       | 9,853             | 0.55 (0.54-0.56)         | 0.46 (0.45-0.47)                             |
| cohort         | 1,789,600       | 8,174             |                           | 1,789,600                                   |
|                | 1,078           | 0.06 (0.06-0.06)  |                           | 1,785,480                                   |
|                | 23,029          | 1.29 (1.27-1.31)  |                           |                                               |
| **High alcohol intake<sup>2,4</sup>** |                 |                   |                          |                                               |
| **Yes**        |                 |                   |                          |                                               |
| ICH-cohort     | 3,120           | 63                | 2.02 (1.58-2.58)         | 0.35 (0.20-0.64)                             |
|                | 3,120           | 11                |                           | 3,120                                        |
|                | 44              | 1.41 (1.05-1.90)  |                           | 3,109                                        |
|                | 148             | 4.76 (4.05-5.59)  |                           |                                               |
| Comparison     | 66,884          | 434               | 0.65 (0.59-0.71)         | 0.47 (0.42-0.52)                             |
| cohort         | 66,884          | 313               |                           | 66,884                                      |
|                | 57              | 0.09 (0.07-0.11)  |                           | 66,690                                      |
|                | 1,049           | 1.57 (1.48-1.67)  |                           |                                               |
| **No**         |                 |                   |                          |                                               |
| ICH-cohort     | 34,362          | 508               | 1.48 (1.36-1.61)         | 0.53 (0.46-0.62)                             |
|                | 34,362          | 183               |                           | 34,362                                      |
|                | 494             | 1.44 (1.32-1.57)  |                           | 34,098                                      |
|                | 1,399           | 4.10 (3.89-4.32)  |                           |                                               |
| Comparison     | 2,149,468       | 11,982            | 0.56 (0.55-0.57)         | 0.48 (0.47-0.49)                             |
| cohort         | 2,149,468       | 10,356            |                           | 2,149,468                                   |
|                | 1,320           | 0.06 (0.06-0.06)  |                           | 2,144,249                                   |
|                | 28,731          | 1.34 (1.32-1.36)  |                           |                                               |
1Defined as stroke [ischemic stroke, intracerebral hemorrhage, or ‘unspecified stroke’], myocardial infarction, systemic embolism, or vascular death
2Assessed at baseline based on data from previous 10 years.
3Chronic obstructive pulmonary disease.
4Disorder or drug use indicative of high alcohol intake.
**eTable 3.** Hazard Ratio of Primary Outcomes and Select Secondary Outcomes in ICH Cohort, Overall and Stratified by Age, Sex, and Baseline Comorbidities (Comparison Cohort Used as Reference)

| Event during follow-up | Ischemic stroke | Myocardial infarction | Intracerebral hemorrhage |
|------------------------|-----------------|-----------------------|-------------------------|
| Baseline characteristic/comorbidity | HR\(^1\) (95% CI) | aHR\(^2\) (95% CI) | HR\(^1\) (95% CI) | aHR\(^2\) (95% CI) | HR\(^1\) (95% CI) | aHR\(^2\) (95% CI) |
| All                    | 2.79 (2.57-3.04) | 2.64 (2.43-2.88) | 1.08 (0.93-1.24) | 1.12 (0.97-1.29) | 23.7 (21.4-26.2) | 23.5 (21.1-26.1) |
| Male sex               | 2.71 (2.43-3.04) | 2.48 (2.21-2.78) | 0.98 (0.82-1.18) | 1.03 (0.86-1.24) | 22.1 (19.2-25.4) | 22.1 (19.0-25.7) |
| Female sex             | 2.89 (2.55-3.28) | 2.88 (2.53-3.27) | 1.24 (0.98-1.56) | 1.29 (1.03-1.63) | 25.6 (22.2-29.5) | 25.6 (22.0-29.7) |
| Age 45-59 years        | 4.98 (4.05-6.11) | 3.21 (2.56-4.01) | 1.66 (1.23-2.25) | 1.42 (1.04-1.95) | 38.6 (28.5-52.2) | 31.2 (22.1-44.0) |
| Age 60-74 years        | 3.03 (2.67-3.44) | 2.44 (2.14-2.78) | 1.02 (0.81-1.28) | 0.98 (0.78-1.22) | 30.5 (26.1-35.6) | 28.1 (23.8-33.1) |
| Age 75-84 years        | 2.71 (2.33-3.14) | 2.46 (2.11-2.86) | 1.00 (0.76-1.30) | 1.04 (0.79-1.36) | 20.8 (17.6-24.7) | 18.2 (15.2-21.8) |
| Age 85+ years          | 2.31 (1.71-3.10) | 1.94 (1.44-2.61) | 1.32 (0.85-2.06) | 1.28 (0.82-2.00) | 20.8 (14.7-29.5) | 18.2 (12.7-26.3) |
| Atrial Fibrillation\(^3\) | 3.04 (2.51-3.68) | 2.99 (2.46-3.64) | 1.16 (0.81-1.67) | 1.19 (0.82-1.72) | 11.9 (8.8-16.9) | 10.8 (7.9-14.8) |
| No                     | 2.63 (2.39-2.88) | 2.56 (2.32-2.81) | 1.04 (0.89-1.22) | 1.10 (0.94-1.28) | 25.3 (22.8-28.1) | 26.2 (23.4-29.3) |
| Hx of Ischemic stroke\(^3\) | 1.83 (1.51-2.23) | 2.01 (1.64-2.47) | 0.71 (0.44-1.12) | 0.85 (0.53-1.37) | 8.5 (6.1-11.8) | 9.7 (6.8-13.9) |
| No                     | 2.63 (2.39-2.89) | 2.68 (2.44-2.95) | 1.11 (0.96-1.29) | 1.15 (0.99-1.33) | 24.9 (22.4-27.7) | 25.4 (22.7-28.4) |
| Diabetes\(^3\)         | Yes             | 2.31 (1.82-2.94) | 2.16 (1.68-2.76) | 0.93 (0.64-1.34) | 1.03 (0.71-1.49) | 19.9 (14.5-27.4) | 21.6 (15.4-30.4) |
| No                     | 2.85 (2.61-3.12) | 2.71 (2.47-2.97) | 1.10 (0.94-1.28) | 1.13 (0.97-1.32) | 24.1 (21.7-26.8) | 23.8 (21.3-26.6) |
| Chronic kidney failure\(^3\) | 2.79 (2.57-3.04) | 2.64 (2.43-2.88) | 1.08 (0.93-1.24) | 1.12 (0.97-1.29) | 23.7 (21.4-26.2) | 23.5 (21.1-26.1) |

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| Condition                        | Ischemic stroke | Myocardial infarction | Intracerebral hemorrhage |
|---------------------------------|-----------------|-----------------------|--------------------------|
| **Yes**                         | 4.68 (2.70-8.14)| 3.62 (2.01-6.54)     | 1.56 (0.73-3.31)         |
| **No**                          | 2.76 (2.54-3.01)| 2.61 (2.40-2.85)     | 1.06 (0.92-1.23)         |
| **Chronic hepatic disease³**    |                 |                       |                          |
| **Yes**                         | 3.97 (2.03-7.74)| 4.17 (1.97-8.83)     | 1.57 (0.57-4.32)         |
| **No**                          | 2.78 (2.55-3.02)| 2.63 (2.41-2.86)     | 1.07 (0.93-1.23)         |
| **COPD³, ⁴**                    |                 |                       |                          |
| **Yes**                         | 3.00 (2.52-3.57)| 2.81 (2.35-3.36)     | 1.08 (0.81-1.44)         |
| **No**                          | 2.73 (2.48-3.01)| 2.58 (2.34-2.85)     | 1.07 (0.91-1.26)         |
| **High alcohol intake³, ⁴**     |                 |                       |                          |
| **Yes**                         | 3.22 (2.47-4.20)| 2.95 (2.23-3.90)     | 0.76 (0.42-1.38)         |
| **No**                          | 2.72 (2.49-2.97)| 2.60 (2.37-2.84)     | 1.11 (0.96-1.28)         |
## Event during follow-up

| Baseline characteristic /comorbidity | Major Vascular Event | Vascular death | Unspecified stroke |
|-------------------------------------|----------------------|----------------|-------------------|
|                                     | HR<sup>1</sup> (95% CI) | adjHR<sup>2</sup> (95% CI) | HR<sup>1</sup> (95% CI) | aHR<sup>2</sup> (95% CI) | HR<sup>1</sup> (95% CI) | aHR<sup>2</sup> (95% CI) |
| All                                 | 3.15 (2.99-3.31) | 3.13 (2.97-3.30) | 2.96 (2.58-3.41) | 3.20 (2.78-3.69) | 3.64 (2.74-4.84) | 3.39 (2.53-4.53) |
| Male sex                            | 2.82 (2.63-3.02) | 2.77 (2.58-2.97) | 2.85 (2.37-3.43) | 3.04 (2.52-3.67) | 3.96 (2.73-5.74) | 3.50 (2.39-5.12) |
| Female sex                          | 3.62 (3.36-3.91) | 3.69 (3.42-3.99) | 3.11 (2.51-3.84) | 3.43 (2.76-4.26) | 3.27 (2.11-5.09) | 3.31 (2.12-5.19) |
| Age 45-59 years                     | 4.69 (4.12-5.34) | 3.38 (2.94-3.89) | 8.80 (5.85-13.22) | 4.97 (3.18-7.79) | 7.77 (3.49-17.28) | 4.09 (1.61-10.40) |
| Age 60-74 years                     | 3.45 (3.19-3.73) | 2.98 (2.75-3.23) | 3.39 (2.65-4.35) | 2.84 (2.20-3.65) | 5.23 (3.40-8.03) | 3.65 (2.33-5.71) |
| Age 75-84 years                     | 3.23 (2.96-3.53) | 3.10 (2.83-3.39) | 3.46 (2.79-4.29) | 3.31 (2.66-4.11) | 3.18 (1.95-5.19) | 2.95 (1.80-4.85) |
| Age 85+ years                       | 2.72 (2.29-3.24) | 2.43 (2.04-2.89) | 2.61 (1.78-3.84) | 2.36 (1.60-3.47) | 1.83 (0.68-4.94) | 1.77 (0.65-4.83) |
| Atrial Fibrillation†<sup>3</sup>    |                     |                 |                   |                   |                   |                   |
| Yes                                 | 2.79 (2.46-3.18) | 2.85 (2.49-3.25) | 1.73 (1.22-2.46) | 1.93 (1.35-2.75) | 3.26 (1.70-6.27) | 3.32 (1.70-6.51) |
| No                                  | 3.10 (2.93-3.27) | 3.16 (2.98-3.34) | 3.10 (2.66-3.61) | 3.57 (3.06-4.17) | 3.54 (2.58-4.85) | 3.35 (2.43-4.63) |
| Hx of Ischemic stroke†<sup>3</sup>  |                     |                 |                   |                   |                   |                   |
| Yes                                 | 1.91 (1.67-2.20) | 2.24 (1.93; 2.59) | 1.83 (1.28; 2.60) | 2.90 (1.99; 4.24) | 1.84 (0.94-3.59) | 1.52 (0.75-3.11) |
| No                                  | 3.12 (2.95; 3.30) | 3.21 (3.04-3.40) | 2.88 (2.47; 3.36) | 3.19 (2.73-3.72) | 3.56 (2.60-4.88) | 3.62 (2.63-4.99) |
| Diabetes†<sup>3</sup>               |                     |                 |                   |                   |                   |                   |
| Yes                                 | 2.41 (2.08-2.78) | 2.49 (2.14-2.89) | 2.23 (1.54-3.23) | 2.65 (1.81-3.88) | 3.85 (1.78-8.33) | 2.96 (1.32-6.62) |
| No                                  | 3.26 (3.08-3.44) | 3.22 (3.05-3.41) | 3.08 (2.65-3.58) | 3.29 (2.82-3.83) | 3.60 (2.65-4.88) | 3.42 (2.51-4.68) |
| Chronic kidney failure†<sup>3</sup> |                     |                 |                   |                   |                   |                   |
| Yes                                 | 3.68 (2.68-5.07) | 3.27 (2.33-4.58) | 2.05 (0.91-4.66) | 2.09 (0.90-4.89) | 9.70 (2.12-44.45) | 12.29 (1.71-88.10) |
| No                                  | 3.13 (2.97-3.30) | 3.10 (2.94-3.27) | 2.99 (2.59-3.44) | 3.23 (2.80-3.73) | 3.55 (2.66-4.74) | 3.30 (2.46-4.44) |

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| Chronic hepatic disease\(^3\) | Major Vascular Event | Vascular death | Unspecified stroke |
|-----------------------------|----------------------|----------------|-------------------|
| Yes                         | 4.01 (2.72-5.90)     | 3.38 (1.53-7.45) | 2.67 (1.09-6.52)  | NA* | NA* |
| No                          | 3.13 (2.97-3.30)     | 2.92 (2.53-3.37) | 3.19 (2.76-3.68)  | 3.68 (2.77-4.89) | 3.42 (2.56-4.57) |

| COPD\(^3,4\)               |                      |                |                   |
|-----------------------------|----------------------|----------------|-------------------|
| Yes                         | 3.01 (2.71-3.36)     | 2.74 (2.08-3.60) | 3.05 (2.30-4.03)  | 1.75 (0.78-3.95) | 1.59 (0.70-3.62) |
| No                          | 3.18 (3.00-3.38)     | 3.04 (2.59-3.57) | 3.27 (2.77-3.85)  | 4.24 (3.13-5.75) | 3.91 (2.87-5.34) |

| High alcohol intake\(^3,5\) |                      |                |                   |
|------------------------------|----------------------|----------------|-------------------|
| Yes                          | 3.07 (2.59-3.65)     | 2.78 (1.86-4.15) | 2.73 (1.79-4.16)  | 3.09 (0.91-10.51)| 2.54 (0.67-9.66) |
| No                           | 3.12 (2.96-3.29)     | 2.87 (2.47-3.33) | 3.18 (2.74-3.70)  | 3.73 (2.78-5.00) | 3.45 (2.56-4.65) |

Abbreviation: NA: Not Applicable (too few events).
1 Hazard ratio, unadjusted.
2 Hazard ratio adjusted for sex, age (5-year bands), study period (4-5 year bands), baseline comorbidty [separate covariates for each of the following: hypertension, atrial fibrillation, IS, MI, systemic embolism, PAD, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and baseline current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors].
3 Assessed at baseline based on data from previous 10 years.
4 Chronic obstructive pulmonary disease.
5 Disorder indicative of high alcohol intake.
**eTable 4. Hazard Ratios for Primary Outcomes and Select Secondary Outcomes in ICH Cohort With Comparison Cohort as Reference and Including Estimates That Adjust for Death as Competing Event**

| Primary outcomes and select secondary outcomes (in italics) | ICH-cohort vs comparison cohort (reference) |
|-------------------------------------------------------------|--------------------------------------------|
|                                                             | HR\(^1\) (95% CI)                        |
|                                                             | aHR\(^2\) (95% CI)                       |
|                                                             | sdHR\(^3\) (95% CI)                      |
| Ischemic stroke                                            | 2.79 (2.57-3.04)                         |
|                                                             | 2.64 (2.43-2.88)                         |
|                                                             | 1.72 (1.58-1.88)                         |
| Intracerebral hemorrhage                                   | 23.7 (21.4-26.2)                         |
|                                                             | 23.5 (21.1-26.13)                        |
|                                                             | 15.5 (13.9-17.2)                         |
| ‘Unspecified stroke’\(^1\)                                 | 3.64 (2.74-4.84)                         |
|                                                             | 3.39 (2.53-4.53)                         |
|                                                             | 2.40 (1.79-3.20)                         |
| Myocardial infarction (MI)                                 | 1.08 (0.93-1.24)                         |
|                                                             | 1.12 (0.97-1.29)                         |
|                                                             | 0.77 (0.67-0.89)                         |
| MACE\(^4\)                                                 | 3.16 (3.01-3.33)                         |
|                                                             | 3.14 (2.98-3.31)                         |
|                                                             | 2.15 (2.04-2.27)                         |
| Vascular death\(^5\)                                       | 3.06 (2.64-3.55)                         |
|                                                             | 3.30 (2.83-3.84)                         |
|                                                             | 1.77 (1.54-2.04)                         |

\(^1\)Hazard ratio, unadjusted.

\(^2\)Hazard ratio adjusted for sex, age (5-year bands), study period (4-5 year bands), baseline comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocardial infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and baseline current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors].

\(^3\)Subdistribution hazard ratio adjusted for same covariates as above with all-cause-death as competing event.

\(^4\)Major adverse cardiovascular event defined as stroke (ischemic stroke, intracerebral hemorrhage, or ‘unspecified stroke’), myocardial infarction, systemic embolism, or vascular death.

\(^5\)Death recorded as sudden cardiac death, or death within 30 days of any of following events: stroke (ischemic stroke, intracerebral hemorrhage, or unspecified stroke), myocardial infarction, systemic embolism, intracranial extra-axial hemorrhage, revascularization procedure, mesenteric ischemia, venous thromboembolism (i.e., deep vein thrombosis or pulmonary embolism), or extracranial hemorrhage.

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**eTable 5. Incidence Rates of Primary and Secondary Study Outcomes Based on Individual Follow-up for Each Outcome With Censoring Only Contingent on Migration, Death, or End of Study Period (as Opposed to Main Analysis, Where First Occurrence of a Primary Outcome Was Also a Censoring Criterion)**

| Outcome during follow-up | ICH cohort | Comparison cohort |
|--------------------------|------------|-------------------|
|                          | No. of events / person-years | Event rate per 100 person-years (95% CI) | No. of events / person-years | Event rate per 100 person-years (95% CI) |
| **Primary outcomes and select secondary outcomes (in italics)** | | | | |
| Ischemic stroke (IS) | 595/39,279 | 1.51 (1.40-1.64) | 12,855/2,256,688 | 0.57 (0.56-0.58) |
| Intracerebral hemorrhage (ICH) | 577/39,813 | 1.45 (1.34-1.57) | 1,504/2,295,631 | 0.07 (0.06-0.07) |
| ‘Unspecified stroke’ | 58/40,841 | 0.14 (0.11-0.18) | 825/2,293,980 | 0.04 (0.03-0.04) |
| Myocardial infarct (MI) | 212/40,469 | 0.52 (0.46-0.60) | 10,949/2,258,156 | 0.48 (0.48-0.49) |
| MACE | 1,584/37,208 | 4.26 (4.05-4.47) | 30,706/2,210,939 | 1.39 (1.37-1.40) |
| Vascular death | 521/41,114 | 1.27 (1.16-1.38) | 7,961/2,297,952 | 0.35 (0.34-0.35) |
| **Secondary outcomes** | | | | |
| Mesenteric ischemia | <5/41,109 | 0.00 (0.00-0.02) | 29/2,297,907 | 0.00 (0.00-0.00) |
| Systemic embolism | 32/41,046 | 0.08 (0.06-0.11) | 859/2,295,486 | 0.04 (0.04-0.04) |
| Venous thromboembolism | 250/40,457 | 0.62 (0.55-0.70) | 8,787/2,269,424 | 0.39 (0.38-0.40) |
| Intracranial extra-axial hemorrhage | 213/40,411 | 0.53 (0.46-0.60) | 2,473/2,291,304 | 0.11 (0.10-0.11) |
| Extranuclear hemorrhage | 681/39,181 | 1.74 (1.61-1.87) | 22,723/2,219,206 | 1.02 (1.01-1.04) |
| Sudden cardiac death | 23/41,113 | 0.06 (0.04-0.08) | 506/2,297,951 | 0.02 (0.02-0.02) |
| All-cause-death | 4,340/41,114 | 10.56 (10.25-10.87) | 78,200/2,297,952 | 3.40 (3.38-3.43) |
| Major ischemic vascular event | 1,346/36,940 | 3.64 (3.45-3.84) | 45,570/2,131,314 | 2.14 (2.12-2.16) |
| Event Type                                      | ICH cohort                                      | Comparison cohort                               |
|------------------------------------------------|------------------------------------------------|-------------------------------------------------|
|                                                | No. of events / person-years  | Event rate per 100 person-years (95% CI) | No. of events / person-years  | Event rate per 100 person-years (95% CI) |
| Major hemorrhagic vascular event<sup>6</sup>   | 1,385/37,369  | 3.71 (3.52-3.91) | 26,199/2,211,136  | 1.18 (1.17-1.20) |
| Major arterial vascular event<sup>7</sup>      | 1,137/37,518  | 3.03 (2.86-3.21) | 38,450/2,155,634  | 1.78 (1.77-1.80) |
| Non-vascular death<sup>9</sup>                 | 3,819/41,114  | 9.29 (9.00-9.59) | 70,239/2,297,952  | 3.06 (3.03-3.08) |

<sup>1</sup>Major adverse cardiovascular event defined as stroke (ischemic stroke, intracerebral hemorrhage, or 'unspecified stroke'), myocardial infarction, systemic embolism, or vascular death.

<sup>2</sup>Death recorded as sudden cardiac death, or death within 30 days of any of the following events: stroke (ischemic stroke, intracerebral hemorrhage, or 'unspecified stroke'), myocardial infarction, systemic embolism, intracranial extraaxial hemorrhage, revascularization procedure, mesenteric ischemia, venous thromboembolism, or extracranial hemorrhage.

<sup>3</sup>Subdural hematoma, subarachnoid hemorrhage, or epidural hematoma.

<sup>4</sup>Gastrointestinal hemorrhage or other major extracranial hemorrhage (for full definition see text).

<sup>5</sup>Defined as ischemic stroke, ‘unspecified stroke’, myocardial infarction, systemic embolism, revascularization procedures, mesenteric ischemia, venous thromboembolism, or sudden cardiac death.

<sup>6</sup>Defined as gastrointestinal hemorrhage or other major extracranial hemorrhage (for full definition see text) and also including intracranial extraaxial hemorrhages.

<sup>7</sup>Defined as ischemic stroke, ‘unspecified stroke’, myocardial infarction, systemic embolism, revascularization procedures, mesenteric ischemia, or sudden cardiac death.

<sup>8</sup>Deaths that do not fulfill criteria for vascular death (see above).
**eTable 6.** Nested Case-Control Analysis of the Risk of Ischemic Stroke During Follow-up Associated With Having Had an Intracerebral Hemorrhage at Baseline

|                      | No. (%) cases | No. (%) controls | OR \(^1\) (95% CI) | Adj.OR \(^2\) (95% CI) |
|----------------------|--------------|------------------|---------------------|------------------------|
| **All**              | 12,987       | 216,885          |                     |                        |
| No previous ICH\(^3\) | 12,416 (95.6)| 213,060 (98.2)  | 1 (reference)       | 1 (reference)          |
| Previous ICH\(^4\)   | 571 (4.4)    | 3,825 (1.8)      | 2.63 (2.40-2.87)    | 2.00 (1.82-2.20)       |
| **Sex**              |              |                  |                     |                        |
| Male                 | 7,200        | 120,247          |                     |                        |
| No previous ICH\(^3\) | 6,881 (95.6)| 118,086 (98.2)  | 1 (reference)       | 1 (reference)          |
| Previous ICH\(^4\)   | 319 (4.4)    | 2,161 (1.8)      | 2.55 (2.26-2.88)    | 1.89 (1.66-2.14)       |
| Female               | 5,787        | 96,638           |                     |                        |
| No previous ICH\(^3\) | 5,535 (95.6)| 94,974 (98.3)   | 1 (reference)       | 1 (reference)          |
| Previous ICH\(^4\)   | 252 (4.4)    | 1,664 (1.7)      | 2.73 (2.38-3.13)    | 2.17 (1.88-2.51)       |
| **Age on index date**|              |                  |                     |                        |
| <75 years            | 6,168        | 119,085          |                     |                        |
| No previous ICH\(^3\) | 5,820 (94.4)| 116,899 (98.2)  | 1 (reference)       | 1 (reference)          |
| Previous ICH\(^4\)   | 348 (5.6)    | 2,186 (1.8)      | 3.36 (2.98-3.78)    | 2.25 (1.98-2.56)       |
| ≥75 years            | 6,819        | 97,800           |                     |                        |
| No previous ICH\(^3\) | 6,596 (96.7)| 96,161 (98.3)   | 1 (reference)       | 1 (reference)          |
| Previous ICH\(^4\)   | 223 (3.3)    | 1,639 (1.7)      | 2.00 (1.73-2.31)    | 1.62 (1.39-1.89)       |
| **Atrial fibrillation\(^7\)** | | | | |
| Yes                  | 3,106        | 24,878           |                     |                        |
| No previous ICH\(^3\) | 2,952 (95.0)| 24,225 (97.4)   | 1 (reference)       | 1 (reference)          |
| Previous ICH\(^4\)   | 154 (5.0)    | 653 (2.6)        | 2.11 (1.76-2.54)    | 1.61 (1.33-1.95)       |
| No                   | 9,881        | 192,007          |                     |                        |
| No previous ICH\(^3\) | 9,464 (95.8)| 188,835 (98.3)  | 1 (reference)       | 1 (reference)          |
| Previous ICH\(^4\)   | 417 (4.2)    | 3,172 (1.7)      | 2.73 (2.46-3.03)    | 2.30 (2.07-2.57)       |
| **Diabetes\(^7\)**   |              |                  |                     |                        |
| Yes                  | 2,198        | 28,224           |                     |                        |
| No previous ICH\(^3\) | 2,101 (95.6)| 27,660 (98.0)   | 1 (reference)       | 1 (reference)          |

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|                  | No. (%) cases | No. (%) controls | OR\(^5\) (95% CI) | Adj.OR\(^5\) (95% CI) |
|------------------|--------------|-----------------|-------------------|-----------------------|
| Previous ICH\(^4\) | 97 (4.4)     | 564 (2.0)       | 2.31 (1.85-2.88)  | 1.81 (1.44-2.28)      |
| No               | 10,789       | 188,661         |                   |                       |
| No previous ICH\(^3\) | 10,315 (95.6) | 185,400 (98.3)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\) | 474 (4.4)    | 3,261 (1.7)     | 2.74 (2.48-3.03)  | 2.16 (1.94-2.39)      |
| History of major ischemic vascular event\(^3\) |               |                 |                   |                       |
| Yes              | 2,091        | 24,811          |                   |                       |
| No previous ICH\(^3\) | 1,861 (89.0)   | 23,561 (95.0)   | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\) | 230 (11.0)    | 1,250 (5.0)     | 2.08 (1.79-2.42)  | 1.83 (1.55-2.15)      |
| No               | 10,896       | 192,074         |                   |                       |
| No previous ICH\(^3\) | 10,555 (96.9) | 189,499 (98.7)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\) | 341 (3.1)     | 2,575 (1.3)     | 2.56 (2.28-2.88)  | 2.12 (1.88-2.39)      |
| History of ischemic stroke before baseline\(^9\) |               |                 |                   |                       |
| Yes              | 722          | 5,588           |                   |                       |
| No previous ICH\(^3\) | 616 (85.3)    | 5,141 (92.0)    | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\) | 106 (14.7)    | 447 (8.0)       | 1.54 (1.22-1.96)  | 1.57 (1.22-2.02)      |
| No               | 12,265       | 211,297         |                   |                       |
| No previous ICH\(^3\) | 11,800 (96.2) | 207,919 (98.4)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\) | 465 (3.8)     | 3,378 (1.6)     | 2.55 (2.30-2.81)  | 2.11 (1.90-2.34)      |
| History of major ischemic vascular event other than ischemic stroke\(^10\) |               |                 |                   |                       |
| Yes              | 1,245        | 17,561          |                   |                       |
| No previous ICH\(^3\) | 1,166 (93.7)  | 17,153 (97.7)   | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\) | 79 (6.3)      | 408 (2.3)       | 2.87 (2.23-3.69)  | 2.31 (1.76-3.01)      |
| No               | 11,742       | 199,324         |                   |                       |
| No previous ICH\(^3\) | 11,250 (95.8) | 195,907 (98.3)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\) | 492 (4.2)     | 3,417 (1.7)     | 2.63 (2.39-2.90)  | 2.06 (1.86-2.28)      |

\(^{5}\) Adjusted for age, sex, and index date (by design).
Adjusted for sex, age, and index date (by design), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocardial infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors]. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

No history of intracerebral hemorrhage at baseline (i.e., stems from comparison-cohort).

First-ever intracerebral hemorrhage at baseline (i.e., stems from ICH-cohort).

Adjusted for age (5-year bands), sex, and index date year (3-year bands).

Adjusted for age (5-year bands), sex, index date year (3-year bands), duration of follow-up (4-year bands), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocardial infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors]. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

At baseline or during follow-up.

Defined as ischemic stroke or ‘unspecified stroke’ (only if recorded before inclusion into baseline), myocardial infarction, systemic embolism, revascularization procedures, mesenteric ischemia, venous thromboembolism, or sudden cardiac death.

Only ischemic strokes recorded before baseline (i.e., before inclusion into cohorts) included.

Defined as in footnote 8 but excluding ischemic stroke or ‘unspecified stroke’.
**eTable 7.** Nested Case-Control Analysis of the Risk of Intracerebral Hemorrhage During Follow-up Associated With Having Had an Intracerebral Hemorrhage at Baseline

|                          | No. (%) cases | No. (%) controls | OR¹ (95% CI) | Adj.OR² (95% CI) |
|--------------------------|--------------|-----------------|-------------|-----------------|
| **All**                  | 1,915        | 64,955          |             |                 |
| No previous ICH³         | 1,377 (71.9) | 63,958 (98.5)   | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 538 (28.1)   | 997 (1.5)       | 26.65 (23.56-30.16) | 25.59 (22.30-29.36) |
| **Sex**                  |              |                 |             |                 |
| Male                     |              |                 |             |                 |
| No previous ICH³         | 707 (72.7)   | 32,689 (98.5)   | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 266 (27.3)   | 496 (1.5)       | 26.27 (22.07-31.29) | 26.87 (22.08-32.71) |
| Female                   | 942          | 31,770          |             |                 |
| No previous ICH³         | 670 (71.1)   | 31,269 (98.4)   | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 272 (28.9)   | 501 (1.6)       | 27.04 (22.70-32.21) | 24.89 (20.49-30.23) |
| **Age on index date**    |              |                 |             |                 |
| <75 years                | 900          | 32,087          |             |                 |
| No previous ICH³         | 578 (64.2)   | 31,570 (98.4)   | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 322 (35.8)   | 517 (1.6)       | 37.98 (31.78-45.38) | 35.74 (29.09-43.91) |
| ≥75 years                | 1,015        | 32,868          |             |                 |
| No previous ICH³         | 799 (78.7)   | 32,388 (98.5)   | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 216 (21.3)   | 480 (1.5)       | 18.82 (15.55-22.77) | 19.27 (15.62-23.78) |
| **Atrial fibrillation⁷** |              |                 |             |                 |
| Yes                      | 416          | 7,683           |             |                 |
| No previous ICH³         | 334 (80.3)   | 7,510 (97.7)    | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 82 (19.7)    | 173 (2.3)       | 10.97 (8.21-14.65) | 13.38 (9.60-18.65) |
| No                       | 1,499        | 57,272          |             |                 |
| No previous ICH³         | 1,043 (69.6) | 56,448 (98.6)   | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 456 (30.4)   | 824 (1.4)       | 30.67 (26.91-34.96) | 30.76 (26.54-35.66) |
| **Diabetes⁷**            |              |                 |             |                 |
| Yes                      | 246          | 8,351           |             |                 |
| No previous ICH³         | 178 (72.4)   | 8,212 (98.3)    | 1 (reference) | 1 (reference)   |
| Previous ICH³            | 68 (27.6)    | 139 (1.7)       | 23.22 (16.68-32.34) | 23.27 (15.91-34.03) |

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| Event                                                      | No. (%) cases | No. (%) controls | OR (95% CI)   | Adj.OR (95% CI) |
|------------------------------------------------------------|----------------|------------------|---------------|-----------------|
| No                                                         | 1,669          | 56,604           |               |                 |
| No previous ICH                                            | 1,199 (71.8)   | 55,746 (98.5)    | 1 (reference) | 1 (reference)   |
| Previous ICH                                               | 470 (28.2)     | 858 (1.5)        | 26.16 (23.03-29.71) | 27.47 (23.78-31.74) |
| History of major ischemic vascular event                   |                |                  |               |                 |
| Yes                                                        | 361            | 6,998            |               |                 |
| No previous ICH                                            | 181 (50.1)     | 6,671 (95.3)     | 1 (reference) | 1 (reference)   |
| Previous ICH                                               | 180 (49.9)     | 327 (4.7)        | 18.21 (14.26-23.26) | 17.81 (13.42-23.62) |
| No                                                         | 1,554          | 57,957           |               |                 |
| No previous ICH                                            | 1,196 (77.0)   | 57,287 (98.8)    | 1 (reference) | 1 (reference)   |
| Previous ICH                                               | 358 (23.0)     | 670 (1.2)        | 27.03 (23.44-31.18) | 29.52 (25.19-34.60) |
| History of ischemic stroke before baseline                 |                |                  |               |                 |
| Yes                                                        | 128            | 1,581            |               |                 |
| No previous ICH                                            | 71 (55.5)      | 1,462 (92.5)     | 1 (reference) | 1 (reference)   |
| Previous ICH                                               | 57 (44.5)      | 119 (7.5)        | 8.33 (5.49-12.64) | 9.93 (6.03-16.35) |
| No                                                         | 1,787          | 63,374           |               |                 |
| No previous ICH                                            | 1,306 (73.1)   | 62,496 (98.6)    | 1 (reference) | 1 (reference)   |
| Previous ICH                                               | 481 (26.9)     | 878 (1.4)        | 27.12 (23.93-30.74) | 28.55 (24.82-32.84) |
| History of major ischemic vascular event other than ischemic stroke |            |                  |               |                 |
| Yes                                                        | 142            | 4,891            |               |                 |
| No previous ICH                                            | 89 (62.7)      | 4,802 (98.2)     | 1 (reference) | 1 (reference)   |
| Previous ICH                                               | 53 (37.3)      | 89 (1.8)         | 31.11 (20.67-46.82) | 37.24 (22.89-60.60) |
| No                                                         | 1,773          | 60,064           |               |                 |
| No previous ICH                                            | 1,288 (72.6)   | 59,156 (98.5)    | 1 (reference) | 1 (reference)   |
| Previous ICH                                               | 485 (27.4)     | 908 (1.5)        | 25.35 (22.38-28.71) | 25.71 (22.34-29.60) |

1 Adjusted for age, sex, and index date (by design).
2 Adjusted for sex, age, and index date (by design), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocardial infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics,
loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

No history of intracerebral hemorrhage at baseline (i.e., stems from comparison-cohort).

First-ever intracerebral hemorrhage at baseline (i.e., stems from ICH-cohort).

Adjusted for age (5-year bands), sex, and index date year (3-year bands).

Adjusted for age (5-year bands), sex, index date year (3-year bands), duration of follow-up (4-year bands), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocardial infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors]. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

At baseline or during follow-up.

Defined as ischemic stroke or ‘unspecified stroke’ (only if recorded before inclusion into baseline), myocardial infarction, systemic embolism, revascularization procedures, mesenteric ischemia, venous thromboembolism, or sudden cardiac death.

Only ischemic strokes recorded before baseline (i.e., before inclusion into cohorts) included.

Defined as in footnote 8 but excluding ischemic stroke or ‘unspecified stroke’.
### eTable 8. Nested Case-Control Analysis of the Risk of Myocardial Infarction During Follow-up Associated With Having Had an Intracerebral Hemorrhage at Baseline

|                              | No. (%) cases | No. (%) controls | OR^1 (95% CI) | Adj.OR^2 (95% CI) |
|------------------------------|---------------|------------------|---------------|-------------------|
| **All**                      | 10,863        | 203,928          |               |                   |
| No previous ICH^3            | 10,669 (98.2) | 200,237 (98.2)  | 1 (reference) | 1 (reference)     |
| Previous ICH^4               | 194 (1.8)     | 3,691 (1.8)      | 0.98 (0.85-1.14) | 0.89 (0.76-1.03) |
| **Sex**                      |               |                  |               |                   |
| Male                         | 7,052         | 121,590          |               |                   |
| No previous ICH^3            | 6,933 (98.3)  | 119,296 (98.1)   | 1 (reference) | 1 (reference)     |
| Previous ICH^4               | 119 (1.7)     | 2,294 (1.9)      | 0.89 (0.74-1.08) | 0.83 (0.68-1.00) |
| Female                       | 3,811         | 82,338           |               |                   |
| No previous ICH^3            | 3,736 (98.0)  | 80,941 (98.3)    | 1 (reference) | 1 (reference)     |
| Previous ICH^4               | 75 (2.0)      | 1,397 (1.7)      | 1.16 (0.92-1.47) | 1.01 (0.79-1.29) |
| **Age on index date**        |               |                  |               |                   |
| <75 years                    | 5,735         | 115,947          |               |                   |
| No previous ICH^3            | 5,615 (97.9)  | 113,724 (98.1)   | 1 (reference) | 1 (reference)     |
| Previous ICH^4               | 120 (2.1)     | 2,223 (1.9)      | 1.09 (0.91-1.32) | 0.92 (0.76-1.12) |
| ≥75 years                    | 5,128         | 87,981           |               |                   |
| No previous ICH^3            | 5,054 (98.6)  | 86,513 (98.3)    | 1 (reference) | 1 (reference)     |
| Previous ICH^4               | 74 (1.4)      | 1,468 (1.7)      | 0.84 (0.66-1.07) | 0.86 (0.67-1.10) |
| **Atrial fibrillation**^7    |               |                  |               |                   |
| Yes                          | 1,898         | 22,510           |               |                   |
| No previous ICH^3            | 1,847 (97.3)  | 21,859 (97.1)    | 1 (reference) | 1 (reference)     |
| Previous ICH^4               | 51 (2.7)      | 651 (2.9)        | 0.99 (0.74-1.32) | 0.88 (0.65-1.18) |
| No                           | 8,965         | 181,418          |               |                   |
| No previous ICH^3            | 8,822 (98.4)  | 178,378 (98.3)   | 1 (reference) | 1 (reference)     |
| Previous ICH^4               | 143 (1.6)     | 3,040 (1.7)      | 0.97 (0.82-1.14) | 0.92 (0.77-1.09) |
| **Diabetes**^7               |               |                  |               |                   |
| Yes                          | 2,081         | 25,971           |               |                   |
| No previous ICH^3            | 2,039 (98.0)  | 25,400 (97.8)    | 1 (reference) | 1 (reference)     |

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|                        | No. (%) cases | No. (%) controls | OR^2 (95% CI) | Adj.OR^2 (95% CI) |
|------------------------|---------------|-----------------|---------------|------------------|
| Previous ICH^3         | 42 (2.0)      | 571 (2.2)       | 0.93 (0.68-1.28) | 0.92 (0.66-1.27)  |
| No                     | 8,782         | 177,957         |               |                  |
| No previous ICH^4      | 8,630 (98.3)  | 174,837 (98.2)  | 1 (reference) | 1 (reference)    |
| Previous ICH^4         | 152 (1.7)     | 3,120 (1.8)     | 1.01 (0.85-1.19) | 0.92 (0.78-1.09)  |
| History of major ischemic vascular event^8 |               |                 |               |                  |
| Yes                    | 2,031         | 23,296          |               |                  |
| No previous ICH^4      | 1,940 (95.5)  | 22,075 (94.8)   | 1 (reference) | 1 (reference)    |
| Previous ICH^4         | 91 (4.5)      | 1,221 (5.2)     | 0.74 (0.59-0.92) | 1.06 (0.84-1.33)  |
| No                     | 8,832         | 180,632         |               |                  |
| No previous ICH^4      | 8,729 (98.8)  | 178,162 (98.6)  | 1 (reference) | 1 (reference)    |
| Previous ICH^4         | 103 (1.2)     | 2,470 (1.4)     | 0.89 (0.73-1.09) | 0.78 (0.63-0.96)  |
| History of ischemic stroke before baseline^9 |               |                 |               |                  |
| Yes                    | 251           | 5,377           |               |                  |
| No previous ICH^4      | 234 (93.2)    | 4,937 (91.8)    | 1 (reference) | 1 (reference)    |
| Previous ICH^4         | 17 (6.8)      | 440 (8.2)       | 0.78 (0.46-1.29) | 0.80 (0.47-1.36)  |
| No                     | 10,612        | 198,551         |               |                  |
| No previous ICH^4      | 10,435 (98.3) | 195,300 (98.4)  | 1 (reference) | 1 (reference)    |
| Previous ICH^4         | 177 (1.7)     | 3,251 (1.6)     | 1.04 (0.89-1.21) | 0.93 (0.80-1.09)  |
| History of major ischemic vascular event other than ischemic stroke^10 |               |                 |               |                  |
| Yes                    | 1,725         | 16,249          |               |                  |
| No previous ICH^4      | 1,677 (97.2)  | 15,865 (97.6)   | 1 (reference) | 1 (reference)    |
| Previous ICH^4         | 48 (2.8)      | 384 (2.4)       | 1.11 (0.81-1.51) | 1.17 (0.85-1.62)  |
| No                     | 9,138         | 187,679         |               |                  |
| No previous ICH^4      | 8,992 (98.4)  | 184,372 (98.2)  | 1 (reference) | 1 (reference)    |
| Previous ICH^4         | 146 (1.6)     | 3,307 (1.8)     | 0.93 (0.78-1.10) | 0.84 (0.71-1.00)  |

^1 Adjusted for age, sex, and index date (by design).

^2 Adjusted for sex, age, and index date (by design), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocardial infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake,
congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors]. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

No history of intracerebral hemorrhage at baseline (i.e., stems from comparison-cohort).

First-ever intracerebral hemorrhage at baseline (i.e., stems from ICH-cohort).

Adjusted for age (5-year bands), sex, and index date year (3-year bands).

Adjusted for age (5-year bands), sex, index date year (3-year bands), duration of follow-up (4-year bands), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocardial infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors]. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

At baseline or during follow-up.

Defined as ischemic stroke or ‘unspecified stroke’ (only if recorded before inclusion into baseline), myocardial infarction, systemic embolism, revascularization procedures, mesenteric ischemia, venous thromboembolism, or sudden cardiac death.

Only ischemic strokes recorded before baseline (i.e., before inclusion into cohorts) included.

Defined as in footnote 8 but excluding ischemic stroke or ‘unspecified stroke’.
eTable 9. Nested Case-Control Analysis of the Risk of Major Adverse Cardiovascular Event (Stroke, Myocardial Infarction, Systemic Embolism, or Vascular Death) During Follow-up Associated With Having Had an Intracerebral Hemorrhage at Baseline

|                  | No. (%) cases | No. (%) controls | OR\(^1\) (95% CI) | Adj.OR\(^2\) (95% CI) |
|------------------|---------------|------------------|-------------------|-----------------------|
| All              | 31,327        | 269,891          |                   |                       |
| No previous ICH\(^3\) | 29,780 (95.1) | 264,945 (98.2)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\)  | 1,547 (4.9)   | 4,946 (1.8)     | 2.89 (2.72-3.07)  | 2.66 (2.49-2.84)      |
| **Sex**          |               |                  |                   |                       |
| Male             | 18,349        | 149,022          |                   |                       |
| No previous ICH\(^3\) | 17,505 (95.4) | 146,191 (98.1)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\)  | 844 (4.6)     | 2,831 (1.9)     | 2.57 (2.37-2.79)  | 2.29 (2.10-2.50)      |
| Female           | 12,978        | 120,869          |                   |                       |
| No previous ICH\(^3\) | 12,275 (94.6) | 118,754 (98.3)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\)  | 703 (5.4)     | 2,115 (1.7)     | 3.38 (3.09-3.70)  | 3.29 (2.98-3.64)      |
| **Age on index date** |            |                  |                   |                       |
| <75 years        | 14,727        | 159,131          |                   |                       |
| No previous ICH\(^3\) | 13,825 (93.9) | 156,180 (98.1)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\)  | 902 (6.1)     | 2,951 (1.9)     | 3.78 (3.49-4.10)  | 3.12 (2.85-3.41)      |
| ≥75 years        | 16,600        | 110,760          |                   |                       |
| No previous ICH\(^3\) | 15,955 (96.1) | 108,765 (98.2)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\)  | 645 (3.9)     | 1,995 (1.8)     | 2.19 (1.99-2.42)  | 2.24 (2.02-2.49)      |
| **Atrial fibrillation\(^7\)** |            |                  |                   |                       |
| Yes              | 6,971         | 26,154           |                   |                       |
| No previous ICH\(^3\) | 6,618 (94.9)  | 25,448 (97.3)   | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\)  | 353 (5.1)     | 706 (2.7)       | 2.15 (1.88-2.46)  | 1.98 (1.72-2.28)      |
| No               | 24,265        | 210,517          |                   |                       |
| No previous ICH\(^3\) | 23,079 (95.1) | 207,202 (98.4)  | 1 (reference)     | 1 (reference)         |
| Previous ICH\(^4\)  | 1,186 (4.9)   | 3,315 (1.6)     | 3.39 (3.16-3.63)  | 3.09 (2.88-3.32)      |
| **Diabetes\(^7\)**|               |                  |                   |                       |
| Yes              | 5,627         | 30,435           |                   |                       |
|                                | No. (%) cases | No. (%) controls | OR\(^5\) (95% CI) | Adj.OR\(^6\) (95% CI) |
|--------------------------------|---------------|-----------------|-------------------|----------------------|
| No previous ICH\(^4\)          | 5,373 (95.5)  | 29,820 (98.0)   | 1 (reference)     | 1 (reference)        |
| Previous ICH\(^4\)            | 254 (4.5)     | 615 (2.0)       | 2.44 (2.10-2.84)  | 2.31 (1.97-2.71)     |
| No                             | 25,609        | 206,236         |                   |                      |
| No previous ICH\(^3\)          | 24,324 (95.0) | 202,830 (98.3)  | 1 (reference)     | 1 (reference)        |
| Previous ICH\(^4\)            | 1,285 (5.0)   | 3,406 (1.7)     | 3.34 (3.12-3.57)  | 2.93 (2.73-3.14)     |
| History of major ischemic vascular event\(^8\) |               |                 |                   |                      |
| Yes                            | 5,622         | 26,243          |                   |                      |
| No previous ICH\(^4\)          | 5,024 (89.4)  | 24,940 (95.0)   | 1 (reference)     | 1 (reference)        |
| Previous ICH\(^4\)            | 598 (10.6)    | 1,303 (5.0)     | 2.03 (1.83-2.25)  | 2.22 (1.98-2.49)     |
| No                             | 25,614        | 210,428         |                   |                      |
| No previous ICH\(^3\)          | 24,673 (96.3) | 207,710 (98.7)  | 1 (reference)     | 1 (reference)        |
| Previous ICH\(^4\)            | 941 (3.7)     | 2,718 (1.3)     | 3.21 (2.97-3.47)  | 2.99 (2.76-3.24)     |
| History of ischemic stroke before baseline\(^9\) |               |                 |                   |                      |
| Yes                            | 1,348         | 6,039           |                   |                      |
| No previous ICH\(^4\)          | 1,137 (84.3)  | 5,591 (92.6)    | 1 (reference)     | 1 (reference)        |
| Previous ICH\(^4\)            | 211 (15.7)    | 448 (7.4)       | 1.98 (1.65-2.38)  | 1.95 (1.60-2.37)     |
| History of ischemic stroke before baseline\(^9\) |               |                 |                   |                      |
| No                             | 29,888        | 230,632         |                   |                      |
| No previous ICH\(^3\)          | 28,560 (95.6) | 227,059 (98.5)  | 1 (reference)     | 1 (reference)        |
| Previous ICH\(^4\)            | 1,328 (4.4)   | 3,573 (1.5)     | 3.15 (2.95-3.36)  | 2.86 (2.67-3.06)     |
| History of major ischemic vascular event other than ischemic stroke\(^10\) |               |                 |                   |                      |
| Yes                            | 3,916         | 18,389          |                   |                      |
| No previous ICH\(^4\)          | 3,696 (94.4)  | 17,978 (97.8)   | 1 (reference)     | 1 (reference)        |
| Previous ICH\(^4\)            | 220 (5.6)     | 411 (2.2)       | 2.58 (2.17-3.06)  | 2.30 (1.91-2.76)     |
| No                             | 27,320        | 218,282         |                   |                      |

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|                     | No. (%) cases | No. (%) controls | OR\(^5\) (95% CI)       | Adj.OR\(^6\) (95% CI) |
|---------------------|---------------|-----------------|-------------------------|-----------------------|
| No previous ICH\(^3\) | 26,001 (95.2) | 214,672 (98.3)  | 1 (reference)           | 1 (reference)         |
| Previous ICH\(^4\)  | 1,319 (4.8)   | 3,610 (1.7)     | 3.23 (3.02-3.45)        | 2.90 (2.70-3.11)      |

\(^1\)Adjusted for age, sex, and index date (by design).
\(^2\)Adjusted for sex, age, and index date (by design), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocadioal infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors]. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

\(^3\)No history of intracerebral hemorrhage at baseline (i.e., stems from comparison-cohort).
\(^4\)First-ever intracerebral hemorrhage at baseline (i.e., stems from ICH-cohort).
\(^5\)Adjusted for age (5-year bands), sex, and index date year (3-year bands).
\(^6\)Adjusted for age (5-year bands), sex, index date year (3-year bands), duration of follow-up (4-year bands), comorbidity [separate covariates for each of the following: hypertension, atrial fibrillation, ischemic stroke, myocadioal infarction, systemic embolism, peripheral arterial disease, venous thromboembolism, diabetes, chronic kidney failure, chronic hepatic diseases, chronic obstructive pulmonary disorder, disorders indicative of high alcohol intake, congestive heart failure, and cancer] and current use of drugs [separate covariates for each of the following drugs/drug classes: low-dose aspirin, clopidogrel, dipyridamole, vitamin K antagonist, direct oral anticoagulant, statins, thiazides and other non-loop diuretics, loop diuretics, beta blockers, calcium channel blockers, ACE-inhibitors and angiotensin II receptor blockers, nonsteroidal anti-inflammatory drugs, selective serotonin re-uptake inhibitors, and proton pump inhibitors]. All covariates were determined on index-date and based on all available data, i.e., from 10 years before baseline and up to index-date.

\(^7\)At baseline or during follow-up.
\(^8\)Defined as ischemic stroke or ‘unspecified stroke’ (only if recorded before inclusion into baseline), myocadioal infarction, systemic embolism, revascularization procedures, mesenteric ischemia, venous thromboembolism, or sudden cardiac death.
\(^9\)Only ischemic strokes recorded before baseline (i.e., before inclusion into cohorts) included.
\(^10\)Defined as in footnote 8 but excluding ischemic stroke or ‘unspecified stroke’.
eFigure 1. Flow Chart of Creation of Intracerebral Hemorrhage (ICH) Cohort and Comparison Cohort Based on Data From a Previous Study

Nationwide case-control study, 2005-2018
16,675 cases matched on age, sex & inclusion date to 660,447 general population controls
By design:
- controls could later become cases
- controls could be selected more than once (replacement method)

Each individuals chronologically first status (case or control?) determined
Each individual only included once (either case or control)

Cases 13,646

Controlok 537,775

Age <45 years 521
Age ≥45 years 13,125

Age ≥45 years 518,506
Age <45 years 19,260

Dead day 0-30 after inclusion date 3,861
Alive day 31 after inclusion date 9,264

Alive day 31 after inclusion date 536,383
Dead day 0-30 after inclusion date 2,146

To ensure at least 5 months follow-up

Cases Jul 2018-Dec 2018 273
Cases Jan 2005-June 2018 8,991

Cohorts matched 1:40 on age, sex, and inclusion date

ICH cohort 8,991
Comparison cohort 359,185

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eFigure 2. Cohort Design
Figure 3. Nested Case-Control Design
eFigure 4. Cumulative Incidence of Ischemic Stroke, Intracerebral Hemorrhage, and Myocardial Infarction

A. Cumulative Incidence

B. Cumulative incidence with death as competing risk
**eFigure 5.** Cumulative Incidence of Major Adverse Cardiovascular Event (Stroke, Myocardial Infarction, Systemic Embolism, or Vascular Death) and All-Cause Death

A. Cumulative Incidence

B. Cumulative incidence with death as competing risk

C. All cause death
**eFigure 6.** Cumulative Incidence of Ischemic Stroke, Intracerebral Hemorrhage, and Major Adverse Cardiovascular Event Stratified by Comorbid Atrial Fibrillation

A. No atrial fibrillation at baseline

B. Atrial fibrillation at baseline
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