Supplementary Material

## Supplementary Figures

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**Supplementary Figure 1.** Distribution of propensity score between RAS inhibitor users and non-users before (A) and after (B) matching. RAS, renin-angiotensin system.

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**Supplementary Figure 2.** Log (minus log) curves for checking proportional hazard assumption. RAS, renin-angiotensin system.

## Supplementary Tables

**Supplementary Table 1.** List of renin-angiotensin system inhibitors

|  |  |
| --- | --- |
| **Drug class** | **Drug name** |
| **Angiotensin-converting enzyme inhibitors** | Alacepril |
| Benazepril |
| Captoprila |
| Cilazapril |
| Delaprila |
| Enalapril |
| Fosinoprila |
| Imidapril |
| Lisinoprila |
| Moexipril |
| Perindoprila |
| Quinapril |
| Ramiprila |
| Temocaprila |
| Trandolaprila |
| Zofenoprila |
| **Angiotensin II receptor type 1 blockers** | Azilsartana |
| Candesartana |
| Eprosartan |
| Fimasartana |
| Irbesartan |
| Losartan |
| Olmesartan |
| Telmisartana |
| Valsartana |

a Blood-brain barrier penetration

**Supplementary Table 2.** List of ICD-10 codes for comorbid diseases

|  |  |
| --- | --- |
| **Disease** | **ICD-10 codes** |
| Hypertension | I10-I15 |
| Dyslipidemia | E78 |
| Diabetes mellitus | E10-E14 |
| End stage renal disease | N18.5 |
| Stroke | I60-I69, G45-G46 |
| Brain injury | S00-S09 |
| Dementia | G30, F00-F03 |
| Chronic obstructive pulmonary disease | J41-J44 |
| Depression | F32-F33, F34.1, F38.1 |
| Gout | M10 |
| Osteoarthritis | M15-M19 |
| Osteoporosis | M80-M82 |
| Severe liver disease | I85.0, I85.9, I86.4, I98.2, K70.4, K71.1, K72.1, K72.9, K76.5-K76.7 |

ICD, International Classification of Disease 10th Revision.

**Supplementary Table 3.** List of concurrent medications

|  |  |
| --- | --- |
| **Drug Class** | **Drug name** |
| ***Antipsychotics*** | Amisulpiride, Aripiprazole, Bromperidol, Chlorpenthixol, Chlorpromazine, Clozapine, Haloperidol, Levomepromazine, Molindone, Olanzapine, Paliperidone, Perphenazine, Pimozide, Quetiapine, Risperidone, Sulpiridea, Thiothixene, Tiapride, Trifluoperazine, Ziprasidone, Zotepine, Zuclopenthixol |
| ***Antiemetics*** | Clebopride |
| Levosulpiride |
| Metoclopramide |
| Sulpiridea |
| ***Calcium channel antagonists*** | Diltiazem |
| Flunarizine |
| Verapamil |
| ***Antiepileptics*** | Levetiracetam |
| Phenytoin |
| Valproate |
| ***Dopamine depleter*** | Tetrabenazine |
| ***Mood stabilizer*** | Lithium |
| ***Beta-blockers*** | Atenolol, Betaxolol, Bevantolol, Bisoprolol, Carteolol, Carvedilol, Celiprolol, Esmolol, Labetalol, Metoprolol, Nadolol, Nebivolol, Propranolol, Sotalol |
| ***Calcium channel blockers (Dihydropyridine)*** | Amlodipine, Barnidipine, Benidipine, Cilnidipine, Efonidipine, Felodipine, Isradipine, Lacidipine, Lercanidipine, Manidipine, Nicardipine, Nifedipine, Nilvadipine, Nimodipine, Nisoldipine, Nitrendipine |
| ***Statins*** | Atorvastatin, Fluvastatin, Lovastatin, Pitavastatin, Pravastatin, Rosuvastatin, Simvastatin |

aSome products of sulpiride were approved as antiemetics by Ministry of Food and Drug Safety.