**Supplemental Appendix to *Preliminary data on the safety of hydroxychloroquine, alone or in combination with azithromycin, in light of rapid wide-spread use for COVID-19: a multinational, network cohort and self-controlled case series study***

All artefacts generated as part of this study are publicly available in an interactive, web-based application at: <https://data.ohdsi.org/Covid19EstimationHydroxychloroquine/>

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# **S1. Data sources**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Database name** | **Population** | **Patient Count (millions)** | **Data History** | **Data capture process and short database description** |
| VA OMOP | USA (Veteran population) | ~12M | 2000 – | VA OMOP data reflects the national Department of Veterans Affairs health care system, which is the largest integrated provider of medical and mental health services in the United States. Care is provided at 170 VA Medical Centers and 1,063 outpatient sites serving more than 9 million enrolled Veterans each year. |
| IQVIA Disease Analyzer Germany | Germany (General population) | 37M | 1992 – | Anonymized patient records collected from Patient Management software used by general practitioners and selected specialists to document patients’ medical records within their office-based practice during a visit . |
| IQVIA UK Integrated Medical Record Data (IMRD) | UK (General population) | 15M | 1989 – | Pseudonymized Electronic Medical Records collected from patient management software used within UK Primary Care |
| IQVIA US Ambulatory EMR | USA (General population) | 49M | 2006 – | General practice EHR, Outpatient specialist EHR - Dataset consists of longitudinal, de-identified ambulatory electronic health records data |
| IQVIA US LRxDx Open Claims | USA (General population) | 654M | 2010 – | Pre-adjudicated claims at the anonymized patient level collected from office-based physicians and specialists via office management software and clearinghouse switch sources for the purpose of reimbursement. |
| Clinical Practice Research Datalink (CPRD) | UK (General population) | 13M | 1995 – | De-identified patient data from a network of general practiotioners practices across the UK. Primary care data are linked to a range of other health related data to provide a longitudinal, representative UK population health dataset. |
| IBM MarketScan Commercial Claims (CCAE) | USA (Patients with commercial insurance aged <65 years) | 142M | 2000 – | Data from individuals enrolled in US employer-sponsored insurance health plans. The data includes adjudicated health insurance claims (e.g. inpatient, outpatient, and outpatient pharmacy) as well as enrollment data from large employers and health plans who provide private healthcare coverage to employees, their spouses,and dependents. Additionally, it captures laboratory tests for a subset of the covered lives. |
| IBM MarketScan Multi-State Medicaid Database (MDCD) | USA | 26M | 2006 – | Adjudicated US health insurance claims for Medicaid enrollees from multiple states and includes hospital discharge diagnoses, outpatient diagnoses and procedures, and outpatient pharmacy claims as well as ethnicity and Medicare eligibility. |
| IBM MarketScan Medicare Supplemental Database (MDCR) | USA (Patients with commercial insurance aged 65+ years) | 10M | 2000 – | Represents health services of retirees (aged 65 or older) in the United States with primary or Medicare supplemental coverage through privately insured fee-for-service, point-of-service, or capitated health plans. These data include adjudicated health insurance claims (e.g. inpatient, outpatient, and outpatient pharmacy). Additionally, it captures laboratory tests for a subset of the covered lives. |
| Japan Medical Data Center (JMDC) | Japan (insured general population) | 5.5M | 2005 – | Data from 60 Society-Managed Health Insurance plans covering workers aged 18 to 65 and their dependents (children younger than 18 years old and elderly peopleolder than 65 years old). JMDC data includes membership status of the insured people and claims data provided byinsurers under contract (e.g. patient-level demographic information, inpatient and outpatient data inclusive of diagnosis and procedures, and prescriptions as dispensed claims information) |
| Optum De-Identified Clinformatics Data Mart Database - SES & DOD | USA (Patients with commercial insurance or commercial Medicare insurance) | 85M | 2000 - | Inpatient and outpatient healthcare insurance claims |
| Optum De-identified Electronic Health Record Dataset (PANTHER) | USA (General population) | 93M | 2006 – | Optum’s de-identified electronic health record data medical records database. The medical record data includes clinical information, inclusive of prescriptions as prescribed and administered, lab results, vital signs, body measurements, diagnoses, procedures, and information derived from clinical notes using Natural Language Processing (NLP). |
| The Information System for Research in Primary Care (SIDIAP) | Spain-Catalonia (80% of general population) | 7.7M | 2006 – | Electronic health records from primary care partially linked to inpatient data. SIDIAP is also linked to a pharmacy dispensations and primary care laboratories. Healthcare is universal and tax-payer funded in the region, and primary care physicians are gatekeepers for all care and responsible for repeat prescriptions. |

# **S2. Cohort definitions**

## **S2.1. Exposures**

The four exposure cohorts were constructed using the logic below. The complete specification, including complete code sets and computer readable JSON and SQL representations are publicly available at the URLs below:

### **S5.1.1. New users of Hydroxychloroquine with prior rheumatoid arthritis**

<https://atlas.ohdsi.org/#/cohortdefinition/173>

Initial Event Cohort

People having any of the following:

* a drug exposure of [OHDSI Cov19] Hydroxychloroquine1
  + for the first time in the person's history
  + with age >= 18

with continuous observation of at least 365 days prior and 0 days after event index date, and limit initial events to: **earliest event per person.**

Inclusion Rules

Inclusion Criteria #1: has rheumatoid arthritis recorded any time on or prior to treatment

Having any of the following criteria:

* at least 1 occurrences of a condition occurrence of [OHDSI Cov19] Rheumatoid arthritis2

where event starts between all days Before and 0 days After index start date

* or at least 1 occurrences of an observation of [OHDSI Cov19] Rheumatoid arthritis2

where event starts between all days Before and 0 days After index start date

Limit qualifying cohort to: **earliest event per person.**

End Date Strategy

Custom Drug Era Exit Criteria

This strategy creates a drug era from the codes found in the specified concept set. If the index event is found within an era, the cohort end date will use the era's end date. Otherwise, it will use the observation period end date that contains the index event.

Use the era end date of [OHDSI Cov19] Hydroxychloroquine1

* allowing 90 days between exposures
* adding 0 days after exposure end

Cohort Collapse Strategy:

Collapse cohort by era with a gap size of 0 days.

### **S5.1.2. New users of sulfasazine with prior rheumatoid arthritis**

<https://atlas.ohdsi.org/#/cohortdefinition/45>

Initial Event Cohort

People having any of the following:

* a drug exposure of [OHDSI Cov19] sulfasalazine2
  + for the first time in the person's history

with continuous observation of at least 365 days prior and 0 days after event index date, and limit initial events to: **earliest event per person.**

Inclusion Rules

Inclusion Criteria #1: has rheumatoid arthritis recorded any time on or prior to treatment

Having all of the following criteria:

* at least 1 occurrences of a condition occurrence of [OHDSI Cov19] Rheumatoid arthritis1

where event starts between all days Before and 0 days After index start date

Limit qualifying cohort to: **earliest event per person.**

End Date Strategy

Custom Drug Era Exit Criteria

This strategy creates a drug era from the codes found in the specified concept set. If the index event is found within an era, the cohort end date will use the era's end date. Otherwise, it will use the observation period end date that contains the index event.

Use the era end date of [OHDSI Cov19] sulfasalazine2

* allowing 90 days between exposures
* adding 0 days after exposure end

Cohort Collapse Strategy:

Collapse cohort by era with a gap size of 0 days.

### **S5.1.3. Users of Hydroxychloroquine + Azithromycin**

<https://atlas.ohdsi.org/#/cohortdefinition/170>

Initial Event Cohort

People having any of the following:

* a drug exposure of Hydroxychloroquine1
  + with age >= 18
* a drug exposure of [OHDSI Covid19] Azithromycin3
  + with age >= 18

with continuous observation of at least 365 days prior and 0 days after event index date, and limit initial events to: **all events per person.**

Inclusion Rules

Inclusion Criteria #1: has both drugs on index

Having all of the following criteria:

* at least 1 occurrences of a drug exposure of Hydroxychloroquine1

where event starts between 30 days Before and 0 days After index start date

* and at least 1 occurrences of a drug exposure of [OHDSI Covid19] Azithromycin3

where event starts between 30 days Before and 0 days After index start date

Inclusion Criteria #2: prior diagnosis of RA

Having any of the following criteria:

* at least 1 occurrences of a condition occurrence of [OHDSI Cov19] Rheumatoid arthritis2

where event starts between all days Before and 0 days After index start date

* or at least 1 occurrences of an observation of [OHDSI Cov19] Rheumatoid arthritis2

where event starts between all days Before and 0 days After index start date

Limit qualifying cohort to: **earliest event per person.**

End Date Strategy

Custom Drug Era Exit Criteria

This strategy creates a drug era from the codes found in the specified concept set. If the index event is found within an era, the cohort end date will use the era's end date. Otherwise, it will use the observation period end date that contains the index event.

Use the era end date of [OHDSI Covid19] Azithromycin3

* allowing 30 days between exposures
* adding 0 days after exposure end

Cohort Collapse Strategy:

Collapse cohort by era with a gap size of 0 days.

### **S5.1.4. Users of Hydroxychloroquine + Amoxicillin**

<https://atlas.ohdsi.org/#/cohortdefinition/171>

Initial Event Cohort

People having any of the following:

* a drug exposure of Hydroxychloroquine1
  + with age >= 18
* a drug exposure of [OHDSI Covid19] Amoxicillin3
  + with age >= 18

with continuous observation of at least 365 days prior and 0 days after event index date, and limit initial events to: **all events per person.**

Inclusion Rules

Inclusion Criteria #1: has both drugs on index

Having all of the following criteria:

* at least 1 occurrences of a drug exposure of Hydroxychloroquine1

where event starts between 30 days Before and 0 days After index start date

* and at least 1 occurrences of a drug exposure of [OHDSI Covid19] Amoxicillin3

where event starts between 30 days Before and 0 days After index start date

Inclusion Criteria #2: Prior diagnosis of RA

Having any of the following criteria:

* at least 1 occurrences of a condition occurrence of [OHDSI Cov19] Rheumatoid arthritis2

where event starts between all days Before and 0 days After index start date

* or at least 1 occurrences of an observation of [OHDSI Cov19] Rheumatoid arthritis2

where event starts between all days Before and 0 days After index start date

Limit qualifying cohort to: **earliest event per person.**

End Date Strategy

Custom Drug Era Exit Criteria

This strategy creates a drug era from the codes found in the specified concept set. If the index event is found within an era, the cohort end date will use the era's end date. Otherwise, it will use the observation period end date that contains the index event.

Use the era end date of [OHDSI Covid19] Amoxicillin3

* allowing 30 days between exposures
* adding 0 days after exposure end

Cohort Collapse Strategy:

Collapse cohort by era with a gap size of 0 days.

## **S2.2. Outcomes**

All safety outcomes for this study were defined as described in the supplementary appendix to Suchard et al (2019): <https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32317-7/fulltext>

# **S3. Negative control outcomes**

|  |  |
| --- | --- |
| **Concept ID** | **Concept Name** |
| 378256 | Abnormal reflex |
| 4092879 | Absent kidney |
| 433753 | Alcohol abuse |
| 321689 | Apnea |
| 78200 | Benign mammary dysplasia |
| 4195873 | Breath smells unpleasant |
| 443792 | Calculus of bile duct |
| 434327 | Cannabis abuse |
| 197318 | Cholesterolosis of gallbladder |
| 432303 | Cocaine abuse |
| 439125 | Complete trisomy 21 syndrome |
| 433270 | Cord entanglement without compression |
| 4311591 | Cramp in limb |
| 441267 | Cystic fibrosis |
| 436233 | Delayed milestone |
| 40486120 | Delay in physiological development |
| 439791 | Emotional upset |
| 374801 | Foreign body in ear |
| 259995 | Foreign body in orifice |
| 196456 | Gallstone |
| 4166231 | Genetic predisposition |
| 434164 | Glycosuria |
| 4163735 | Hemochromatosis |
| 439871 | Hemospermia |
| 4058388 | Hypertrophic scar |
| 435522 | Hypervitaminosis D |
| 443236 | Hypnotic or anxiolytic dependence |
| 4098604 | Hypomagnesemia |
| 435371 | Hypothermia |
| 443447 | Iatrogenic hypotension |
| 374375 | Impacted cerumen |
| 4344500 | Impingement syndrome of shoulder region |
| 440382 | Learning difficulties |
| 435516 | Lipoprotein deficiency disorder |
| 438808 | Mammary duct ectasia |
| 441553 | Myoclonus |
| 4119307 | Neurogenic claudication |
| 4209423 | Nicotine dependence |
| 438130 | Opioid abuse |
| 313601 | Oxygen supply absent |
| 44782778 | Pain disorder with psychological factor |
| 4091513 | Passing flatus |
| 4022076 | Patient dependence on care provider |
| 439971 | Poisoning by anticoagulant |
| 46286594 | Problem related to lifestyle |
| 199876 | Prolapse of female genital organs |
| 4049367 | Psychologic conversion disorder |
| 440068 | Psychosexual dysfunction |
| 436246 | Reduced libido |
| 73754 | Restless legs |
| 4168212 | Restlessness and agitation |
| 138821 | Seborrhea |
| 4198492 | Shoulder joint unstable |
| 25518 | Sickle cell trait |
| 4176908 | Snapping thumb syndrome |
| 4248728 | Snoring |
| 138278 | Sprains and strains of joints and adjacent muscles |
| 4008710 | Stenosis due to any device, implant AND/OR graft |
| 40479573 | Stimulant abuse |
| 40483172 | Stimulant dependence |
| 440233 | Strain of supraspinatus muscle AND/OR tendon |
| 4194160 | Thyroid function tests abnormal |
| 4216708 | Urgent desire for stool |
| 4275889 | Visual hallucinations |
| 4193634 | Worried |

# **S4. Covariate construction**

The following consistently extracted set of baseline patient characteristics will be constructed for input in the PS model. From this large set of typically tens of thousands of covariates, key predictors of exposure classification will be selected for inclusion in the PS model. Note that not all data sources necessarily include data for all covariates. Covariates to be included:

* Demographics (age in 5-year bands, sex, race, ethnicity, index year, index month)
* All conditions occurrence records aggregated to SNOMED clinical finding level during the following lookback windows:
  + in 365 days prior to and including index date
  + in 30 days prior to and including index date
* All drug exposure records aggregated to RxNorm ingredient level and ATC classes during the following lookback windows:
  + in 365 days prior to and including index date
  + in 30 days prior to and including index date
  + persistent exposure that overlaps index date
* All procedure occurrence records during the following lookback windows:
  + in 365 days prior to and including index date
  + in 30 days prior to and including index date
* Measurements (including laboratories) within, above, and below normal range during the following lookback window:
  + in 365 days prior to and including index date
* Device exposure records during the following lookback windows:
  + in 365 days prior to and including index date
  + in 30 days prior to and including index date
* Comorbidity or risk scores including:
  + Charlson
  + DCSI
  + CHADS2
  + CHADS2VASc

# **S5. Exposure cohort counts**

Table here

# **S6. Covariate balance before and after PS stratification**

## **S6.1. HCQ vs SSZ**

### S6.1.1. AmbEMR

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| 20-24 | 0.7 | 0.6 | 0.01 | 0.7 | 0.6 | 0.01 |
| 25-29 | 1.3 | 1.4 | -0.01 | 1.3 | 1.4 | 0.00 |
| 30-34 | 2.4 | 2.2 | 0.02 | 2.3 | 2.3 | 0.00 |
| 35-39 | 3.5 | 3.7 | -0.01 | 3.5 | 3.4 | 0.01 |
| 40-44 | 5.4 | 5.0 | 0.02 | 5.3 | 5.1 | 0.01 |
| 45-49 | 7.4 | 7.0 | 0.02 | 7.4 | 7.5 | 0.00 |
| 50-54 | 10.4 | 11.0 | -0.02 | 10.5 | 10.5 | 0.00 |
| 55-59 | 13.1 | 13.4 | -0.01 | 13.2 | 12.9 | 0.01 |
| 60-64 | 13.8 | 14.4 | -0.02 | 13.9 | 14.1 | 0.00 |
| 65-69 | 13.7 | 14.2 | -0.01 | 13.8 | 13.7 | 0.00 |
| 70-74 | 13.1 | 13.3 | -0.01 | 13.1 | 13.9 | -0.02 |
| 75-79 | 11.2 | 9.8 | 0.05 | 10.9 | 11.0 | 0.00 |
| 80-84 | 3.9 | 3.9 | 0.00 | 3.9 | 3.7 | 0.01 |
| Gender: female | 79.7 | 74.1 | 0.13 | 78.3 | 78.4 | 0.00 |
| Race |  |  |  |  |  |  |
| race = Asian | 1.4 | 1.5 | -0.02 | 1.4 | 1.3 | 0.00 |
| race = White | 70.9 | 71.7 | -0.02 | 71.1 | 71.3 | 0.00 |
| race = African American | 8.0 | 7.8 | 0.01 | 8.0 | 7.7 | 0.01 |
| Ethnicity |  |  |  |  |  |  |
| ethnicity = Hispanic or Latino | 1.3 | 1.8 | -0.04 | 1.4 | 1.5 | -0.01 |
| ethnicity = Not Hispanic or Latino | 80.3 | 81.0 | -0.02 | 80.5 | 80.3 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 13.5 | 14.2 | -0.02 | 13.7 | 13.8 | 0.00 |
| Attention deficit hyperactivity disorder | 0.6 | 0.4 | 0.02 | 0.6 | 0.5 | 0.01 |
| Chronic liver disease | 1.5 | 1.5 | 0.00 | 1.5 | 1.4 | 0.01 |
| Chronic obstructive lung disease | 7.0 | 7.2 | -0.01 | 7.1 | 6.9 | 0.01 |
| Crohn's disease | 0.4 | 1.1 | -0.08 | 0.5 | 0.6 | -0.02 |
| Dementia | 0.6 | 0.5 | 0.02 | 0.6 | 0.6 | 0.00 |
| Diabetes mellitus | 13.2 | 13.2 | 0.00 | 13.2 | 13.7 | -0.02 |
| Gastroesophageal reflux disease | 15.9 | 14.6 | 0.04 | 15.6 | 15.7 | 0.00 |
| Gastrointestinal hemorrhage | 1.2 | 1.2 | 0.00 | 1.2 | 1.2 | 0.00 |
| Human immunodeficiency virus infection | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| Hyperlipidemia | 29.0 | 28.1 | 0.02 | 28.8 | 29.1 | -0.01 |
| Hypertensive disorder | 38.0 | 37.1 | 0.02 | 37.8 | 38.2 | -0.01 |
| Lesion of liver | 0.9 | 0.8 | 0.01 | 0.9 | 0.8 | 0.01 |
| Obesity | 8.9 | 8.9 | 0.00 | 8.9 | 9.0 | 0.00 |
| Osteoarthritis | 25.5 | 27.1 | -0.04 | 25.8 | 25.2 | 0.01 |
| Pneumonia | 3.1 | 3.4 | -0.01 | 3.2 | 3.1 | 0.01 |
| Psoriasis | 1.5 | 3.2 | -0.11 | 1.7 | 2.0 | -0.02 |
| Renal impairment | 5.3 | 4.8 | 0.02 | 5.2 | 5.3 | -0.01 |
| Rheumatoid arthritis | 84.0 | 82.2 | 0.05 | 83.6 | 84.4 | -0.02 |
| Ulcerative colitis | 0.3 | 1.2 | -0.10 | 0.4 | 0.6 | -0.03 |
| Urinary tract infectious disease | 6.0 | 5.2 | 0.04 | 5.8 | 5.5 | 0.01 |
| Viral hepatitis C | 1.0 | 1.0 | 0.00 | 1.0 | 0.9 | 0.01 |
| Visual system disorder | 8.6 | 8.8 | 0.00 | 8.6 | 8.5 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 3.3 | 3.1 | 0.01 | 3.2 | 3.2 | 0.00 |
| Cerebrovascular disease | 3.1 | 2.8 | 0.02 | 3.1 | 3.1 | 0.00 |
| Coronary arteriosclerosis | 5.7 | 5.6 | 0.00 | 5.7 | 5.6 | 0.00 |
| Heart disease | 15.9 | 14.6 | 0.04 | 15.6 | 15.6 | 0.00 |
| Heart failure | 2.6 | 2.3 | 0.02 | 2.6 | 2.4 | 0.01 |
| Ischemic heart disease | 1.7 | 1.6 | 0.01 | 1.7 | 1.5 | 0.02 |
| Pulmonary embolism | 0.8 | 0.7 | 0.01 | 0.8 | 0.7 | 0.01 |
| Venous thrombosis | 1.3 | 1.2 | 0.01 | 1.3 | 1.4 | -0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 0.4 | 0.3 | 0.02 | 0.4 | 0.4 | 0.01 |
| Malignant lymphoma | 0.4 | 0.5 | -0.01 | 0.4 | 0.6 | -0.03 |
| Malignant neoplasm of anorectum | 0.1 | 0.1 | -0.01 | 0.1 | 0.1 | 0.00 |
| Malignant neoplastic disease | 6.9 | 6.6 | 0.01 | 6.8 | 7.0 | -0.01 |
| Malignant tumor of breast | 1.5 | 1.4 | 0.01 | 1.4 | 1.6 | -0.01 |
| Malignant tumor of colon | 0.3 | 0.3 | 0.00 | 0.3 | 0.3 | -0.01 |
| Malignant tumor of lung | 0.3 | 0.4 | -0.02 | 0.3 | 0.3 | -0.01 |
| Malignant tumor of urinary bladder | 0.2 | 0.3 | -0.01 | 0.2 | 0.2 | 0.00 |
| Primary malignant neoplasm of prostate | 0.4 | 0.3 | 0.00 | 0.4 | 0.3 | 0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 33.2 | 33.6 | -0.01 | 33.3 | 33.6 | -0.01 |
| Antibacterials for systemic use | 24.7 | 25.3 | -0.01 | 24.9 | 24.5 | 0.01 |
| Antidepressants | 36.1 | 34.9 | 0.02 | 35.7 | 35.7 | 0.00 |
| Antiepileptics | 24.0 | 24.1 | 0.00 | 24.0 | 24.0 | 0.00 |
| Antiinflammatory and antirheumatic products | 42.8 | 44.4 | -0.03 | 43.1 | 43.4 | 0.00 |
| Antineoplastic agents | 35.9 | 41.4 | -0.11 | 37.3 | 37.8 | -0.01 |
| Antipsoriatics | 0.6 | 0.7 | 0.00 | 0.6 | 0.7 | 0.00 |
| Antithrombotic agents | 25.2 | 23.5 | 0.04 | 24.9 | 25.2 | -0.01 |
| Beta blocking agents | 25.2 | 25.1 | 0.00 | 25.2 | 25.8 | -0.02 |
| Calcium channel blockers | 17.5 | 17.7 | 0.00 | 17.5 | 17.7 | 0.00 |
| Diuretics | 30.6 | 30.0 | 0.01 | 30.5 | 31.2 | -0.01 |
| Drugs for obstructive airway diseases | 30.9 | 30.0 | 0.02 | 30.8 | 31.0 | 0.00 |
| Drugs used in diabetes | 14.2 | 14.3 | 0.00 | 14.3 | 14.8 | -0.01 |
| Immunosuppressants | 49.4 | 61.2 | -0.24 | 52.2 | 52.1 | 0.00 |
| Lipid modifying agents | 33.2 | 33.7 | -0.01 | 33.3 | 33.5 | 0.00 |
| Opioids | 28.4 | 30.7 | -0.05 | 28.9 | 28.8 | 0.00 |
| Psycholeptics | 26.3 | 25.6 | 0.02 | 26.1 | 26.1 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 4.0 | 3.8 | 0.01 | 4.0 | 4.0 | 0.00 |

### S6.1.2. CCAE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | 1.9 | 1.9 | 0.00 | 1.8 | 2.0 | -0.01 |
| 25-29 | 2.6 | 2.6 | 0.00 | 2.5 | 2.7 | -0.01 |
| 30-34 | 4.5 | 4.6 | 0.00 | 4.5 | 4.4 | 0.00 |
| 40-44 | 9.8 | 9.5 | 0.01 | 9.7 | 9.5 | 0.01 |
| 45-49 | 13.7 | 12.9 | 0.02 | 13.6 | 13.4 | 0.00 |
| 50-54 | 18.2 | 18.1 | 0.00 | 18.2 | 18.0 | 0.01 |
| 55-59 | 20.6 | 21.0 | -0.01 | 20.8 | 20.8 | 0.00 |
| 60-64 | 19.0 | 19.8 | -0.02 | 19.4 | 19.8 | -0.01 |
| 65-69 | 1.8 | 1.7 | 0.00 | 1.8 | 1.6 | 0.01 |
| Gender: female | 82.0 | 74.3 | 0.19 | 80.1 | 79.7 | 0.01 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 35.5 | 34.4 | 0.02 | 35.1 | 34.8 | 0.01 |
| Chronic liver disease | 3.2 | 3.2 | 0.00 | 3.2 | 3.3 | 0.00 |
| Chronic obstructive lung disease | 4.2 | 4.5 | -0.01 | 4.3 | 4.5 | -0.01 |
| Crohn's disease | 0.6 | 1.8 | -0.12 | 0.7 | 1.1 | -0.04 |
| Dementia | 0.2 | 0.2 | 0.01 | 0.2 | 0.2 | 0.00 |
| Depressive disorder | 13.4 | 13.5 | 0.00 | 13.3 | 13.5 | 0.00 |
| Diabetes mellitus | 13.5 | 13.4 | 0.00 | 13.6 | 13.8 | -0.01 |
| Gastroesophageal reflux disease | 13.7 | 13.5 | 0.01 | 13.6 | 13.5 | 0.00 |
| Gastrointestinal hemorrhage | 2.9 | 3.4 | -0.03 | 3.0 | 3.2 | -0.01 |
| Human immunodeficiency virus infection | 0.1 | 0.2 | -0.01 | 0.1 | 0.1 | 0.00 |
| Hyperlipidemia | 31.5 | 30.5 | 0.02 | 31.2 | 31.4 | 0.00 |
| Hypertensive disorder | 34.7 | 34.9 | 0.00 | 34.8 | 35.0 | 0.00 |
| Lesion of liver | 0.9 | 0.8 | 0.01 | 0.9 | 0.8 | 0.00 |
| Obesity | 9.3 | 9.1 | 0.00 | 9.2 | 9.5 | -0.01 |
| Osteoarthritis | 43.4 | 44.4 | -0.02 | 43.5 | 44.2 | -0.01 |
| Pneumonia | 4.0 | 3.9 | 0.00 | 4.0 | 4.0 | 0.00 |
| Psoriasis | 3.0 | 8.9 | -0.25 | 3.8 | 5.2 | -0.07 |
| Renal impairment | 3.1 | 2.8 | 0.02 | 3.0 | 2.8 | 0.01 |
| Rheumatoid arthritis | 84.2 | 85.7 | -0.04 | 84.9 | 85.3 | -0.01 |
| Schizophrenia | 0.1 | 0.1 | -0.01 | 0.1 | 0.1 | -0.01 |
| Ulcerative colitis | 0.6 | 1.9 | -0.12 | 0.7 | 1.0 | -0.04 |
| Urinary tract infectious disease | 11.9 | 10.8 | 0.03 | 11.6 | 11.5 | 0.00 |
| Viral hepatitis C | 1.1 | 1.0 | 0.01 | 1.1 | 1.0 | 0.01 |
| Visual system disorder | 25.7 | 26.2 | -0.01 | 25.7 | 25.9 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 1.4 | 1.3 | 0.02 | 1.4 | 1.3 | 0.01 |
| Cerebrovascular disease | 2.8 | 2.6 | 0.01 | 2.8 | 2.9 | -0.01 |
| Heart disease | 15.7 | 15.0 | 0.02 | 15.5 | 15.4 | 0.00 |
| Heart failure | 1.9 | 2.0 | 0.00 | 1.9 | 2.0 | 0.00 |
| Ischemic heart disease | 2.9 | 3.1 | -0.01 | 3.0 | 3.1 | -0.01 |
| Peripheral vascular disease | 1.6 | 1.5 | 0.01 | 1.5 | 1.6 | -0.01 |
| Pulmonary embolism | 0.8 | 0.5 | 0.03 | 0.8 | 0.6 | 0.02 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.0 | 1.0 | 0.00 | 1.0 | 1.0 | 0.00 |
| Malignant lymphoma | 0.5 | 0.5 | 0.00 | 0.5 | 0.4 | 0.02 |
| Malignant neoplasm of anorectum | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| Malignant tumor of breast | 1.8 | 1.6 | 0.02 | 1.7 | 1.7 | 0.00 |
| Malignant tumor of colon | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.00 |
| Malignant tumor of lung | 0.1 | 0.2 | -0.01 | 0.2 | 0.1 | 0.00 |
| Primary malignant neoplasm of prostate | 0.4 | 0.4 | -0.01 | 0.4 | 0.4 | 0.00 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 24.3 | 24.9 | -0.01 | 24.5 | 24.6 | 0.00 |
| Antibacterials for systemic use | 43.8 | 44.3 | -0.01 | 43.8 | 44.0 | 0.00 |
| Antidepressants | 36.4 | 36.5 | 0.00 | 36.3 | 36.5 | 0.00 |
| Antiepileptics | 20.3 | 21.0 | -0.02 | 20.4 | 20.2 | 0.00 |
| Antiinflammatory and antirheumatic products | 55.3 | 57.4 | -0.04 | 55.8 | 56.7 | -0.02 |
| Antineoplastic agents | 30.7 | 37.8 | -0.15 | 33.0 | 33.1 | 0.00 |
| Antipsoriatics | 0.7 | 1.2 | -0.06 | 0.7 | 1.0 | -0.03 |
| Antithrombotic agents | 7.4 | 7.3 | 0.01 | 7.4 | 7.3 | 0.00 |
| Beta blocking agents | 15.8 | 16.2 | -0.01 | 15.9 | 16.2 | -0.01 |
| Calcium channel blockers | 11.7 | 11.5 | 0.01 | 11.7 | 11.8 | 0.00 |
| Drugs for acid related disorders | 32.3 | 33.6 | -0.03 | 32.6 | 32.6 | 0.00 |
| Drugs for obstructive airway diseases | 29.7 | 29.3 | 0.01 | 29.5 | 29.5 | 0.00 |
| Drugs used in diabetes | 10.4 | 10.5 | 0.00 | 10.5 | 10.8 | -0.01 |
| Immunosuppressants | 39.6 | 53.0 | -0.27 | 43.4 | 43.6 | 0.00 |
| Lipid modifying agents | 22.6 | 23.5 | -0.02 | 22.8 | 23.2 | -0.01 |
| Opioids | 38.5 | 40.7 | -0.05 | 39.0 | 39.3 | -0.01 |
| Psycholeptics | 33.6 | 33.7 | 0.00 | 33.4 | 33.3 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 5.9 | 5.6 | 0.01 | 5.8 | 5.7 | 0.01 |

### S6.1.3. CPRD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.3 | 0.2 | 0.01 | 0.3 | 0.2 | 0.00 |
| 20-24 | 0.8 | 1.0 | -0.02 | 0.9 | 0.9 | -0.01 |
| 25-29 | 1.2 | 1.7 | -0.04 | 1.4 | 1.6 | -0.02 |
| 30-34 | 2.7 | 3.1 | -0.02 | 3.0 | 3.0 | 0.00 |
| 35-39 | 4.6 | 4.6 | 0.00 | 4.7 | 4.6 | 0.01 |
| 40-44 | 5.6 | 6.6 | -0.04 | 6.2 | 6.4 | 0.00 |
| 45-49 | 8.9 | 8.1 | 0.03 | 8.6 | 8.5 | 0.00 |
| 50-54 | 11.4 | 10.8 | 0.02 | 11.2 | 10.9 | 0.01 |
| 55-59 | 13.2 | 12.6 | 0.02 | 13.4 | 12.8 | 0.02 |
| 60-64 | 13.1 | 13.2 | 0.00 | 12.8 | 13.0 | -0.01 |
| 65-69 | 12.6 | 12.7 | 0.00 | 12.6 | 12.7 | 0.00 |
| 70-74 | 10.8 | 11.6 | -0.02 | 11.2 | 11.2 | 0.00 |
| 80-84 | 4.5 | 4.3 | 0.01 | 4.2 | 4.4 | -0.01 |
| 85-89 | 1.6 | 1.3 | 0.03 | 1.3 | 1.4 | -0.01 |
| 90-94 | 0.3 | 0.2 | 0.03 | 0.3 | 0.2 | 0.03 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 9.2 | 9.1 | 0.00 | 9.4 | 9.3 | 0.01 |
| Chronic obstructive lung disease | 2.3 | 2.0 | 0.02 | 2.2 | 2.0 | 0.01 |
| Crohn's disease | <0.1 | 0.1 | -0.03 | 0.1 | 0.1 | -0.01 |
| Depressive disorder | 2.7 | 3.2 | -0.03 | 3.0 | 3.1 | 0.00 |
| Diabetes mellitus | 2.2 | 2.1 | 0.01 | 2.1 | 2.2 | -0.01 |
| Gastroesophageal reflux disease | 0.5 | 0.4 | 0.02 | 0.4 | 0.4 | 0.00 |
| Gastrointestinal hemorrhage | 1.0 | 1.4 | -0.04 | 1.2 | 1.4 | -0.02 |
| Hyperlipidemia | 1.2 | 1.0 | 0.02 | 1.2 | 1.0 | 0.01 |
| Hypertensive disorder | 3.0 | 3.9 | -0.05 | 3.2 | 3.6 | -0.02 |
| Lesion of liver | 0.1 | 0.1 | 0.01 | 0.1 | 0.1 | 0.01 |
| Obesity | 0.4 | 0.5 | -0.01 | 0.4 | 0.5 | -0.01 |
| Osteoarthritis | 7.6 | 10.4 | -0.10 | 8.6 | 8.9 | -0.01 |
| Pneumonia | 0.8 | 0.6 | 0.03 | 0.9 | 0.6 | 0.03 |
| Psoriasis | 0.7 | 1.9 | -0.10 | 1.2 | 1.5 | -0.03 |
| Renal impairment | 2.3 | 1.8 | 0.03 | 1.9 | 2.2 | -0.02 |
| Rheumatoid arthritis | 61.3 | 72.3 | -0.24 | 67.4 | 66.3 | 0.02 |
| Visual system disorder | 7.0 | 6.9 | 0.00 | 6.7 | 6.9 | -0.01 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 0.7 | 0.7 | 0.00 | 0.8 | 0.7 | 0.02 |
| Cerebrovascular disease | 0.4 | 0.8 | -0.05 | 0.5 | 0.7 | -0.03 |
| Coronary arteriosclerosis | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| Heart disease | 3.0 | 3.4 | -0.02 | 3.4 | 3.1 | 0.01 |
| Heart failure | 0.5 | 0.7 | -0.02 | 0.7 | 0.6 | 0.01 |
| Ischemic heart disease | 1.0 | 1.5 | -0.04 | 1.2 | 1.3 | -0.01 |
| Peripheral vascular disease | 0.2 | 0.2 | 0.01 | 0.3 | 0.2 | 0.02 |
| Pulmonary embolism | 0.2 | 0.2 | -0.01 | 0.2 | 0.2 | -0.02 |
| Venous thrombosis | 0.8 | 1.0 | -0.01 | 0.9 | 1.0 | 0.00 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Malignant neoplastic disease | 1.3 | 1.0 | 0.02 | 1.1 | 1.0 | 0.01 |
| Malignant tumor of breast | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | -0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 22.0 | 16.8 | 0.13 | 19.4 | 19.4 | 0.00 |
| Antibacterials for systemic use | 37.3 | 35.0 | 0.05 | 35.7 | 36.2 | -0.01 |
| Antidepressants | 26.6 | 22.6 | 0.09 | 25.0 | 24.9 | 0.00 |
| Antiepileptics | 6.5 | 4.3 | 0.10 | 5.4 | 5.2 | 0.01 |
| Antiinflammatory and antirheumatic products | 60.5 | 67.7 | -0.15 | 64.3 | 63.8 | 0.01 |
| Antineoplastic agents | 51.4 | 28.6 | 0.48 | 39.3 | 40.8 | -0.03 |
| Antipsoriatics | 0.7 | 1.3 | -0.06 | 0.9 | 1.2 | -0.02 |
| Antithrombotic agents | 17.9 | 16.7 | 0.03 | 17.3 | 17.2 | 0.00 |
| Beta blocking agents | 14.4 | 13.5 | 0.03 | 14.4 | 13.9 | 0.02 |
| Calcium channel blockers | 15.5 | 12.1 | 0.10 | 13.4 | 13.6 | 0.00 |
| Diuretics | 19.0 | 20.9 | -0.05 | 20.0 | 20.1 | 0.00 |
| Drugs for acid related disorders | 58.3 | 51.0 | 0.15 | 54.1 | 54.6 | -0.01 |
| Drugs used in diabetes | 7.1 | 5.8 | 0.05 | 6.2 | 6.6 | -0.02 |
| Immunosuppressants | 55.2 | 30.0 | 0.53 | 42.2 | 43.0 | -0.02 |
| Lipid modifying agents | 23.0 | 17.1 | 0.15 | 19.5 | 19.8 | -0.01 |
| Opioids | 36.3 | 41.1 | -0.10 | 39.0 | 38.9 | 0.00 |
| Psycholeptics | 16.5 | 16.4 | 0.00 | 16.7 | 16.5 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 0.1 | 0.1 | 0.01 | 0.1 | 0.1 | 0.01 |

### S6.1.4. DAGermany

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.3 | 0.5 | -0.03 | 0.3 | 0.5 | -0.03 |
| 20-24 | 1.1 | 1.3 | -0.02 | 1.1 | 1.2 | -0.01 |
| 25-29 | 1.9 | 2.4 | -0.04 | 2.0 | 2.4 | -0.03 |
| 30-34 | 2.4 | 3.5 | -0.07 | 2.9 | 3.0 | -0.01 |
| 35-39 | 4.0 | 4.1 | -0.01 | 3.9 | 4.1 | -0.01 |
| 40-44 | 5.8 | 6.6 | -0.03 | 6.1 | 6.3 | -0.01 |
| 50-54 | 12.0 | 12.7 | -0.02 | 12.7 | 12.5 | 0.01 |
| 55-59 | 14.2 | 14.8 | -0.02 | 14.8 | 14.9 | 0.00 |
| 60-64 | 13.2 | 12.1 | 0.03 | 12.3 | 12.4 | 0.00 |
| 65-69 | 11.4 | 10.6 | 0.03 | 11.2 | 10.6 | 0.02 |
| 70-74 | 10.2 | 9.5 | 0.02 | 9.8 | 9.7 | 0.00 |
| 75-79 | 9.1 | 7.5 | 0.06 | 8.2 | 8.1 | 0.01 |
| 80-84 | 4.4 | 3.9 | 0.02 | 4.2 | 4.0 | 0.01 |
| 85-89 | 1.4 | 1.0 | 0.04 | 1.2 | 1.0 | 0.02 |
| 90-94 | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.00 |
| Gender: female | 81.4 | 72.5 | 0.21 | 76.0 | 77.2 | -0.03 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 11.9 | 12.6 | -0.02 | 12.2 | 12.0 | 0.01 |
| Attention deficit hyperactivity disorder | <0.1 | 0.1 | -0.01 | <0.1 | <0.1 | 0.02 |
| Chronic liver disease | 0.6 | 0.3 | 0.05 | 0.6 | 0.3 | 0.05 |
| Chronic obstructive lung disease | 3.4 | 4.0 | -0.03 | 3.4 | 3.7 | -0.02 |
| Crohn's disease | 0.2 | 1.5 | -0.14 | 0.5 | 1.0 | -0.06 |
| Dementia | 0.6 | 0.5 | 0.01 | 0.6 | 0.5 | 0.01 |
| Depressive disorder | 8.3 | 8.3 | 0.00 | 8.2 | 8.0 | 0.01 |
| Diabetes mellitus | 6.9 | 7.6 | -0.03 | 7.3 | 7.1 | 0.01 |
| Gastroesophageal reflux disease | 1.9 | 2.0 | -0.01 | 1.9 | 2.0 | 0.00 |
| Gastrointestinal hemorrhage | 0.4 | 0.6 | -0.03 | 0.5 | 0.6 | -0.02 |
| Hyperlipidemia | 7.1 | 8.4 | -0.05 | 8.0 | 7.7 | 0.01 |
| Hypertensive disorder | 18.5 | 19.2 | -0.02 | 19.0 | 18.3 | 0.02 |
| Lesion of liver | 0.5 | 0.3 | 0.03 | 0.4 | 0.3 | 0.02 |
| Obesity | 2.2 | 2.4 | -0.01 | 2.2 | 2.2 | 0.00 |
| Osteoarthritis | 11.4 | 13.2 | -0.06 | 12.4 | 12.1 | 0.01 |
| Pneumonia | 1.9 | 1.5 | 0.03 | 2.0 | 1.6 | 0.04 |
| Psoriasis | 2.3 | 4.4 | -0.12 | 3.7 | 3.5 | 0.01 |
| Renal impairment | 2.6 | 2.3 | 0.02 | 2.4 | 2.4 | 0.00 |
| Rheumatoid arthritis | 46.4 | 54.7 | -0.17 | 52.4 | 50.1 | 0.04 |
| Schizophrenia | <0.1 | 0.1 | -0.03 | <0.1 | 0.1 | -0.01 |
| Ulcerative colitis | 0.2 | 1.6 | -0.16 | 0.4 | 1.1 | -0.08 |
| Urinary tract infectious disease | 4.0 | 4.1 | -0.01 | 4.0 | 3.9 | 0.00 |
| Viral hepatitis C | 0.3 | 0.1 | 0.04 | 0.3 | 0.1 | 0.04 |
| Visual system disorder | 5.8 | 5.6 | 0.01 | 5.6 | 5.5 | 0.01 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 0.8 | 0.8 | 0.00 | 0.8 | 0.7 | 0.00 |
| Cerebrovascular disease | 1.4 | 1.8 | -0.03 | 1.4 | 1.6 | -0.02 |
| Coronary arteriosclerosis | 1.0 | 1.1 | -0.01 | 1.1 | 1.1 | 0.00 |
| Heart disease | 10.5 | 11.4 | -0.03 | 10.6 | 10.6 | 0.00 |
| Heart failure | 2.1 | 2.6 | -0.04 | 2.0 | 2.4 | -0.03 |
| Ischemic heart disease | 4.3 | 5.2 | -0.04 | 4.7 | 4.6 | 0.00 |
| Peripheral vascular disease | 1.0 | 1.0 | 0.00 | 0.9 | 0.9 | 0.00 |
| Pulmonary embolism | 0.6 | 0.3 | 0.04 | 0.6 | 0.4 | 0.03 |
| Venous thrombosis | 1.3 | 1.4 | -0.02 | 1.5 | 1.5 | 0.00 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 0.3 | 0.2 | 0.03 | 0.3 | 0.2 | 0.02 |
| Malignant lymphoma | 0.2 | 0.2 | 0.01 | 0.2 | 0.1 | 0.01 |
| Malignant neoplasm of anorectum | 0.2 | 0.2 | 0.01 | 0.1 | 0.1 | 0.00 |
| Malignant neoplastic disease | 3.4 | 3.2 | 0.01 | 3.2 | 3.2 | 0.00 |
| Malignant tumor of breast | 0.7 | 0.6 | 0.01 | 0.6 | 0.6 | 0.00 |
| Malignant tumor of colon | 0.3 | 0.1 | 0.03 | 0.3 | 0.1 | 0.04 |
| Malignant tumor of lung | <0.1 | <0.1 | 0.02 | <0.1 | <0.1 | 0.00 |
| Malignant tumor of urinary bladder | <0.1 | 0.2 | -0.05 | <0.1 | 0.2 | -0.05 |
| Primary malignant neoplasm of prostate | 0.2 | 0.3 | -0.03 | 0.2 | 0.2 | -0.02 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 16.7 | 17.1 | -0.01 | 16.8 | 16.5 | 0.01 |
| Antibacterials for systemic use | 12.7 | 14.7 | -0.06 | 13.5 | 13.7 | 0.00 |
| Antiepileptics | 3.0 | 2.3 | 0.04 | 2.6 | 2.2 | 0.02 |
| Antiinflammatory and antirheumatic products | 33.3 | 36.1 | -0.06 | 35.4 | 34.7 | 0.01 |
| Antineoplastic agents | 31.8 | 26.8 | 0.11 | 29.4 | 30.4 | -0.02 |
| Antipsoriatics | 0.2 | 0.3 | -0.01 | 0.2 | 0.2 | 0.00 |
| Antithrombotic agents | 10.1 | 9.9 | 0.01 | 9.6 | 9.4 | 0.01 |
| Beta blocking agents | 13.7 | 13.3 | 0.01 | 13.0 | 13.1 | 0.00 |
| Calcium channel blockers | 7.6 | 7.7 | 0.00 | 7.6 | 7.3 | 0.01 |
| Diuretics | 13.9 | 14.6 | -0.02 | 14.5 | 13.7 | 0.02 |
| Drugs for acid related disorders | 32.1 | 32.7 | -0.01 | 32.3 | 32.5 | 0.00 |
| Drugs for obstructive airway diseases | 7.0 | 7.7 | -0.03 | 7.4 | 7.2 | 0.01 |
| Drugs used in diabetes | 4.4 | 4.8 | -0.02 | 4.7 | 4.5 | 0.01 |
| Immunosuppressants | 40.7 | 35.0 | 0.12 | 38.9 | 38.5 | 0.01 |
| Lipid modifying agents | 7.3 | 9.2 | -0.07 | 8.2 | 8.2 | 0.00 |
| Opioids | 12.5 | 12.9 | -0.01 | 12.2 | 12.3 | 0.00 |
| Psycholeptics | 4.8 | 6.0 | -0.05 | 4.8 | 5.3 | -0.02 |
| Psychostimulants, agents used for adhd and nootropics | 0.2 | 0.4 | -0.03 | 0.2 | 0.3 | -0.03 |

### S6.1.5. IMRD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.2 | 0.2 | 0.02 | 0.2 | 0.2 | 0.01 |
| 20-24 | 0.8 | 1.0 | -0.03 | 0.8 | 1.0 | -0.02 |
| 25-29 | 1.2 | 1.6 | -0.03 | 1.4 | 1.6 | -0.01 |
| 30-34 | 2.8 | 3.2 | -0.02 | 2.9 | 3.1 | -0.01 |
| 35-39 | 4.8 | 5.0 | -0.01 | 5.0 | 4.8 | 0.01 |
| 40-44 | 6.0 | 6.1 | 0.00 | 6.3 | 6.0 | 0.01 |
| 45-49 | 8.7 | 7.8 | 0.03 | 8.4 | 8.5 | 0.00 |
| 50-54 | 11.3 | 10.8 | 0.02 | 11.2 | 11.0 | 0.01 |
| 55-59 | 13.0 | 12.4 | 0.02 | 12.7 | 12.4 | 0.01 |
| 60-64 | 13.2 | 13.8 | -0.02 | 13.5 | 13.5 | 0.00 |
| 65-69 | 13.0 | 12.8 | 0.01 | 12.9 | 13.0 | 0.00 |
| 70-74 | 11.0 | 11.4 | -0.01 | 11.2 | 11.2 | 0.00 |
| 75-79 | 7.7 | 8.3 | -0.02 | 7.8 | 8.0 | 0.00 |
| 80-84 | 4.4 | 4.1 | 0.02 | 4.1 | 4.2 | 0.00 |
| 85-89 | 1.5 | 1.3 | 0.02 | 1.3 | 1.4 | -0.01 |
| 90-94 | 0.3 | 0.2 | 0.02 | 0.2 | 0.2 | 0.00 |
| Gender: female | 73.2 | 68.0 | 0.11 | 70.7 | 71.0 | 0.00 |
| Race |  |  |  |  |  |  |
| race = Asian | 0.1 | 0.1 | 0.02 | 0.1 | 0.1 | 0.00 |
| race = White | 29.8 | 25.8 | 0.09 | 27.4 | 27.6 | 0.00 |
| race = Asian Indian | 0.7 | 0.4 | 0.04 | 0.6 | 0.5 | 0.02 |
| race = Bangladeshi | 0.1 | <0.1 | 0.02 | <0.1 | <0.1 | 0.02 |
| race = Chinese | 0.1 | <0.1 | 0.03 | 0.1 | <0.1 | 0.03 |
| race = Pakistani | 0.3 | 0.2 | 0.03 | 0.3 | 0.2 | 0.03 |
| race = Black | 0.4 | 0.2 | 0.03 | 0.3 | 0.2 | 0.02 |
| race = African | 0.2 | <0.1 | 0.05 | 0.2 | <0.1 | 0.04 |
| race = European | 0.1 | <0.1 | 0.02 | 0.1 | <0.1 | 0.02 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 9.2 | 9.3 | 0.00 | 9.2 | 9.1 | 0.00 |
| Chronic liver disease | 0.1 | 0.1 | 0.00 | <0.1 | <0.1 | 0.00 |
| Chronic obstructive lung disease | 2.1 | 2.5 | -0.02 | 2.2 | 2.3 | -0.01 |
| Crohn's disease | <0.1 | 0.2 | -0.05 | <0.1 | 0.1 | -0.04 |
| Dementia | 0.2 | 0.1 | 0.03 | 0.1 | 0.1 | 0.02 |
| Depressive disorder | 2.6 | 2.9 | -0.02 | 2.9 | 2.7 | 0.01 |
| Diabetes mellitus | 2.3 | 2.2 | 0.01 | 2.2 | 2.1 | 0.01 |
| Gastroesophageal reflux disease | 0.3 | 0.6 | -0.03 | 0.4 | 0.6 | -0.03 |
| Gastrointestinal hemorrhage | 0.9 | 1.3 | -0.04 | 1.0 | 1.1 | -0.01 |
| Hyperlipidemia | 1.1 | 1.3 | -0.02 | 1.1 | 1.2 | 0.00 |
| Hypertensive disorder | 3.1 | 3.7 | -0.03 | 3.2 | 3.3 | 0.00 |
| Lesion of liver | 0.1 | 0.1 | 0.01 | 0.1 | <0.1 | 0.01 |
| Obesity | 0.3 | 0.5 | -0.03 | 0.4 | 0.6 | -0.03 |
| Osteoarthritis | 7.5 | 9.4 | -0.07 | 8.1 | 8.2 | 0.00 |
| Pneumonia | 0.7 | 0.6 | 0.00 | 0.7 | 0.7 | 0.00 |
| Psoriasis | 0.8 | 2.2 | -0.12 | 1.3 | 1.6 | -0.02 |
| Rheumatoid arthritis | 61.4 | 69.3 | -0.17 | 65.6 | 63.7 | 0.04 |
| Schizophrenia | <0.1 | <0.1 | 0.01 | <0.1 | <0.1 | 0.02 |
| Ulcerative colitis | <0.1 | <0.1 | -0.01 | <0.1 | <0.1 | -0.01 |
| Urinary tract infectious disease | 3.1 | 2.9 | 0.01 | 3.1 | 3.0 | 0.01 |
| Visual system disorder | 6.6 | 7.0 | -0.02 | 6.6 | 6.8 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 0.7 | 0.7 | 0.00 | 0.7 | 0.6 | 0.01 |
| Cerebrovascular disease | 0.5 | 0.7 | -0.03 | 0.5 | 0.7 | -0.02 |
| Coronary arteriosclerosis | 0.1 | 0.1 | 0.01 | 0.1 | 0.1 | 0.02 |
| Heart disease | 2.7 | 2.9 | -0.01 | 2.8 | 2.6 | 0.01 |
| Heart failure | 0.4 | 0.4 | -0.01 | 0.4 | 0.4 | 0.01 |
| Ischemic heart disease | 0.8 | 1.2 | -0.04 | 1.0 | 1.0 | 0.00 |
| Peripheral vascular disease | 0.2 | 0.2 | 0.01 | 0.3 | 0.2 | 0.02 |
| Pulmonary embolism | 0.2 | 0.2 | -0.01 | 0.2 | 0.3 | -0.02 |
| Venous thrombosis | 0.8 | 1.1 | -0.03 | 0.8 | 1.1 | -0.02 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 0.1 | 0.1 | 0.01 | 0.1 | <0.1 | 0.02 |
| Malignant neoplasm of anorectum | <0.1 | <0.1 | 0.02 | <0.1 | <0.1 | 0.02 |
| Malignant neoplastic disease | 1.3 | 1.1 | 0.02 | 1.2 | 1.0 | 0.02 |
| Malignant tumor of breast | 0.2 | 0.2 | 0.02 | 0.2 | 0.2 | 0.01 |
| Malignant tumor of colon | <0.1 | <0.1 | -0.01 | <0.1 | <0.1 | 0.00 |
| Malignant tumor of lung | 0.1 | 0.1 | 0.01 | 0.1 | 0.1 | 0.02 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 0.6 | 0.6 | 0.00 | 0.6 | 0.8 | -0.02 |
| Antibacterials for systemic use | 3.8 | 3.4 | 0.02 | 3.6 | 3.5 | 0.01 |
| Antidepressants | 1.1 | 1.1 | -0.01 | 1.0 | 1.2 | -0.02 |
| Antiepileptics | 0.1 | 0.2 | -0.03 | 0.1 | 0.2 | -0.03 |
| Antiinflammatory and antirheumatic products | 1.6 | 1.9 | -0.03 | 1.6 | 1.8 | -0.01 |
| Antineoplastic agents | 1.5 | 0.6 | 0.08 | 1.2 | 0.9 | 0.02 |
| Antithrombotic agents | 1.1 | 1.1 | 0.00 | 1.2 | 1.2 | 0.00 |
| Beta blocking agents | 0.4 | 0.6 | -0.02 | 0.5 | 0.6 | -0.01 |
| Calcium channel blockers | 0.6 | 0.5 | 0.00 | 0.6 | 0.5 | 0.02 |
| Diuretics | 0.8 | 1.0 | -0.02 | 1.0 | 0.9 | 0.01 |
| Drugs for acid related disorders | 1.6 | 1.7 | 0.00 | 1.7 | 1.7 | 0.01 |
| Drugs for obstructive airway diseases | 0.4 | 0.4 | 0.00 | 0.5 | 0.4 | 0.00 |
| Drugs used in diabetes | 0.2 | 0.2 | 0.01 | 0.2 | 0.2 | 0.00 |
| Immunosuppressants | 1.6 | 0.7 | 0.08 | 1.3 | 1.0 | 0.02 |
| Lipid modifying agents | 0.9 | 0.9 | 0.00 | 0.9 | 1.0 | -0.01 |
| Opioids | 0.6 | 0.6 | -0.01 | 0.6 | 0.6 | -0.01 |
| Psycholeptics | 0.4 | 0.5 | -0.01 | 0.4 | 0.4 | -0.01 |

### S6.1.6. JMDC

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | <2.1 | <0.2 | 0.12 | <0.8 | <0.3 | 0.04 |
| 20-24 | 4.1 | 1.1 | 0.19 | 1.4 | 1.2 | 0.02 |
| 25-29 | 5.4 | 2.2 | 0.17 | 1.8 | 2.2 | -0.03 |
| 30-34 | 9.1 | 3.8 | 0.22 | 3.1 | 3.8 | -0.04 |
| 35-39 | 9.5 | 7.4 | 0.08 | 3.2 | 7.1 | -0.17 |
| 40-44 | 15.4 | 10.3 | 0.15 | 38.4 | 10.4 | 0.65 |
| 50-54 | 16.6 | 16.5 | 0.00 | 16.6 | 16.6 | 0.00 |
| 55-59 | 13.7 | 16.0 | -0.06 | 15.6 | 16.3 | -0.02 |
| 60-64 | 4.1 | 13.4 | -0.33 | 1.4 | 13.0 | -0.46 |
| 65-69 | 3.3 | 8.4 | -0.22 | 1.1 | 8.7 | -0.35 |
| 70-74 | <2.1 | 3.4 | -0.22 | <0.8 | 3.6 | -0.26 |
| Gender: female | 89.6 | 68.2 | 0.54 | 85.5 | 69.6 | 0.38 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 57.3 | 52.4 | 0.10 | 63.6 | 53.6 | 0.20 |
| Chronic liver disease | 10.8 | 5.5 | 0.20 | 3.7 | 5.9 | -0.10 |
| Chronic obstructive lung disease | <2.1 | 1.5 | 0.02 | <0.8 | 1.5 | -0.09 |
| Crohn's disease | <2.1 | 0.5 | -0.02 | <0.8 | 0.7 | -0.08 |
| Depressive disorder | 12.0 | 8.6 | 0.11 | 37.3 | 9.2 | 0.66 |
| Diabetes mellitus | 39.8 | 18.5 | 0.48 | 13.5 | 19.8 | -0.16 |
| Gastroesophageal reflux disease | <2.1 | 0.3 | 0.01 | <0.8 | 0.3 | -0.04 |
| Gastrointestinal hemorrhage | 5.4 | 1.3 | 0.23 | 12.8 | 1.4 | 0.42 |
| Hyperlipidemia | 46.5 | 26.4 | 0.43 | 48.9 | 27.5 | 0.43 |
| Hypertensive disorder | 49.0 | 23.6 | 0.55 | 27.6 | 24.8 | 0.06 |
| Lesion of liver | 5.8 | 1.5 | 0.23 | 2.0 | 1.5 | 0.03 |
| Obesity | <2.1 | 0.8 | -0.05 | <0.8 | 0.9 | -0.10 |
| Osteoarthritis | 20.3 | 38.7 | -0.41 | 17.9 | 38.1 | -0.45 |
| Pneumonia | 9.5 | 4.8 | 0.19 | 47.4 | 5.2 | 1.02 |
| Psoriasis | 3.3 | 5.5 | -0.10 | 1.1 | 5.6 | -0.25 |
| Renal impairment | 9.5 | 1.9 | 0.34 | 3.2 | 2.2 | 0.06 |
| Rheumatoid arthritis | 86.3 | 99.0 | -0.50 | 95.4 | 98.9 | -0.20 |
| Schizophrenia | 3.3 | 2.3 | 0.06 | 1.1 | 2.5 | -0.10 |
| Ulcerative colitis | <2.1 | 1.5 | -0.02 | <0.8 | 1.8 | -0.13 |
| Urinary tract infectious disease | 4.6 | 2.5 | 0.11 | 34.7 | 2.8 | 0.83 |
| Viral hepatitis C | 2.5 | 1.8 | 0.05 | 0.8 | 1.8 | -0.08 |
| Visual system disorder | 93.4 | 43.1 | 1.28 | 53.6 | 47.5 | 0.12 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Cerebrovascular disease | 4.1 | 2.8 | 0.08 | 1.4 | 2.9 | -0.10 |
| Coronary arteriosclerosis | <2.1 | <0.2 | 0.05 | <0.8 | <0.3 | -0.02 |
| Heart disease | 40.7 | 12.7 | 0.67 | 13.8 | 13.8 | 0.00 |
| Heart failure | 20.3 | 5.8 | 0.44 | 6.9 | 6.6 | 0.01 |
| Ischemic heart disease | 22.8 | 5.1 | 0.53 | 7.7 | 5.7 | 0.08 |
| Peripheral vascular disease | 6.2 | 2.7 | 0.17 | 2.1 | 2.8 | -0.04 |
| Pulmonary embolism | <2.1 | 0.2 | 0.12 | <0.8 | 0.4 | 0.00 |
| Venous thrombosis | 9.1 | 1.6 | 0.34 | 3.1 | 2.0 | 0.07 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | <2.1 | 0.9 | 0.00 | <0.8 | 0.9 | -0.08 |
| Malignant lymphoma | 2.5 | 1.2 | 0.09 | 0.8 | 1.5 | -0.06 |
| Malignant neoplastic disease | 6.2 | 6.7 | -0.02 | 2.1 | 7.1 | -0.24 |
| Malignant tumor of breast | <2.1 | 1.4 | -0.06 | <0.8 | 1.5 | -0.13 |
| Malignant tumor of colon | <2.1 | 0.6 | -0.03 | <0.8 | 0.6 | -0.08 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 26.1 | 12.7 | 0.35 | 8.9 | 13.5 | -0.14 |
| Antibacterials for systemic use | 71.4 | 50.9 | 0.43 | 79.3 | 52.5 | 0.57 |
| Antidepressants | 10.8 | 7.2 | 0.13 | 3.7 | 7.7 | -0.17 |
| Antiepileptics | 11.6 | 10.9 | 0.02 | 3.9 | 11.6 | -0.28 |
| Antiinflammatory and antirheumatic products | 39.4 | 72.9 | -0.72 | 79.5 | 71.9 | 0.17 |
| Antineoplastic agents | 15.4 | 28.7 | -0.33 | 16.2 | 28.5 | -0.29 |
| Antipsoriatics | 2.1 | 3.2 | -0.07 | <0.8 | 3.4 | -0.19 |
| Antithrombotic agents | 44.8 | 12.1 | 0.78 | 15.2 | 13.3 | 0.05 |
| Beta blocking agents | 7.9 | 3.9 | 0.17 | 13.6 | 4.3 | 0.31 |
| Calcium channel blockers | 19.5 | 12.4 | 0.20 | 17.6 | 12.8 | 0.13 |
| Diuretics | 9.5 | 4.0 | 0.22 | 3.2 | 4.3 | -0.05 |
| Drugs for acid related disorders | 90.0 | 81.8 | 0.24 | 96.6 | 81.8 | 0.48 |
| Drugs for obstructive airway diseases | 25.7 | 23.3 | 0.06 | 52.9 | 24.3 | 0.59 |
| Drugs used in diabetes | 8.7 | 6.6 | 0.08 | 3.0 | 7.1 | -0.19 |
| Immunosuppressants | 66.8 | 32.6 | 0.73 | 33.6 | 33.8 | 0.00 |
| Lipid modifying agents | 27.4 | 14.7 | 0.32 | 9.3 | 15.6 | -0.18 |
| Opioids | 27.4 | 23.3 | 0.09 | 42.5 | 24.4 | 0.37 |
| Psycholeptics | 43.2 | 27.5 | 0.33 | 58.8 | 28.7 | 0.61 |
| Psychostimulants, agents used for adhd and nootropics | <2.1 | 0.9 | -0.06 | <0.8 | 0.9 | -0.11 |

### S6.1.7. MDCD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 1.2 | 1.2 | 0.00 | 1.2 | 1.3 | -0.01 |
| 20-24 | 2.1 | 2.8 | -0.04 | 2.1 | 3.1 | -0.06 |
| 25-29 | 4.4 | 3.8 | 0.03 | 4.3 | 4.2 | 0.00 |
| 30-34 | 6.6 | 6.8 | -0.01 | 6.4 | 6.9 | -0.02 |
| 35-39 | 9.0 | 8.8 | 0.01 | 8.8 | 8.8 | 0.00 |
| 40-44 | 10.2 | 9.3 | 0.03 | 10.0 | 9.1 | 0.03 |
| 45-49 | 13.3 | 13.0 | 0.01 | 13.2 | 13.7 | -0.01 |
| 50-54 | 15.9 | 16.1 | 0.00 | 16.2 | 15.9 | 0.01 |
| 55-59 | 15.8 | 16.2 | -0.01 | 15.9 | 15.5 | 0.01 |
| 60-64 | 12.0 | 13.9 | -0.06 | 12.3 | 12.9 | -0.02 |
| 65-69 | 4.5 | 4.0 | 0.02 | 4.6 | 4.2 | 0.02 |
| 70-74 | 2.0 | 1.9 | 0.01 | 2.0 | 1.9 | 0.00 |
| 75-79 | 1.6 | 1.0 | 0.06 | 1.6 | 1.0 | 0.05 |
| 80-84 | 1.0 | 1.0 | 0.00 | 1.0 | 1.0 | 0.00 |
| 85-89 | 0.4 | <0.2 | 0.04 | 0.4 | 0.3 | 0.01 |
| Gender: female | 85.9 | 79.0 | 0.18 | 84.4 | 84.5 | 0.00 |
| Race |  |  |  |  |  |  |
| race = Black or African American | 28.8 | 24.7 | 0.09 | 27.9 | 26.2 | 0.04 |
| race = White | 54.4 | 57.4 | -0.06 | 55.1 | 54.9 | 0.00 |
| Ethnicity |  |  |  |  |  |  |
| ethnicity = Hispanic or Latino | 2.3 | 1.9 | 0.03 | 2.4 | 2.1 | 0.02 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 41.8 | 40.5 | 0.03 | 41.5 | 41.6 | 0.00 |
| Attention deficit hyperactivity disorder | 2.6 | 2.0 | 0.04 | 2.6 | 2.1 | 0.03 |
| Chronic liver disease | 6.9 | 7.4 | -0.02 | 6.9 | 7.4 | -0.02 |
| Chronic obstructive lung disease | 21.0 | 21.6 | -0.02 | 21.2 | 21.5 | -0.01 |
| Crohn's disease | 0.8 | 3.5 | -0.19 | 1.0 | 1.9 | -0.08 |
| Dementia | 1.2 | 0.9 | 0.03 | 1.1 | 1.1 | 0.01 |
| Depressive disorder | 36.0 | 35.4 | 0.01 | 35.5 | 35.8 | -0.01 |
| Gastroesophageal reflux disease | 29.5 | 30.8 | -0.03 | 29.5 | 30.7 | -0.03 |
| Gastrointestinal hemorrhage | 4.9 | 6.4 | -0.06 | 5.0 | 5.9 | -0.04 |
| Human immunodeficiency virus infection | 0.5 | 0.7 | -0.02 | 0.5 | 0.8 | -0.03 |
| Hyperlipidemia | 36.4 | 36.7 | -0.01 | 36.4 | 38.3 | -0.04 |
| Hypertensive disorder | 55.7 | 53.0 | 0.05 | 55.2 | 54.6 | 0.01 |
| Lesion of liver | 2.0 | 1.9 | 0.01 | 2.0 | 2.2 | -0.01 |
| Obesity | 21.5 | 20.0 | 0.04 | 21.2 | 20.2 | 0.02 |
| Osteoarthritis | 57.1 | 57.0 | 0.00 | 57.4 | 57.6 | 0.00 |
| Pneumonia | 8.7 | 8.0 | 0.02 | 8.5 | 8.0 | 0.02 |
| Psoriasis | 2.0 | 6.6 | -0.23 | 2.5 | 3.4 | -0.06 |
| Renal impairment | 9.4 | 8.0 | 0.05 | 9.2 | 8.3 | 0.03 |
| Rheumatoid arthritis | 80.9 | 84.4 | -0.09 | 81.9 | 83.4 | -0.04 |
| Schizophrenia | 1.7 | 2.1 | -0.03 | 1.6 | 2.3 | -0.05 |
| Ulcerative colitis | 0.5 | 1.7 | -0.11 | 0.6 | 1.2 | -0.06 |
| Urinary tract infectious disease | 17.8 | 16.5 | 0.04 | 17.4 | 16.6 | 0.02 |
| Viral hepatitis C | 5.9 | 6.0 | 0.00 | 5.9 | 6.3 | -0.02 |
| Visual system disorder | 39.9 | 40.7 | -0.02 | 40.0 | 39.9 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 3.3 | 2.3 | 0.06 | 3.2 | 3.2 | 0.00 |
| Cerebrovascular disease | 5.3 | 5.2 | 0.00 | 5.1 | 5.3 | -0.01 |
| Coronary arteriosclerosis | 9.7 | 8.7 | 0.04 | 9.6 | 10.1 | -0.02 |
| Heart disease | 29.7 | 26.8 | 0.07 | 29.0 | 28.8 | 0.00 |
| Ischemic heart disease | 7.3 | 7.0 | 0.01 | 7.1 | 8.0 | -0.03 |
| Peripheral vascular disease | 4.8 | 4.1 | 0.03 | 4.6 | 4.3 | 0.02 |
| Pulmonary embolism | 2.0 | 1.0 | 0.08 | 1.9 | 1.6 | 0.02 |
| Venous thrombosis | 3.1 | 2.5 | 0.04 | 2.9 | 3.2 | -0.02 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.5 | 1.2 | 0.03 | 1.5 | 1.2 | 0.02 |
| Malignant lymphoma | 0.4 | 0.5 | 0.00 | 0.4 | 0.3 | 0.01 |
| Malignant neoplasm of anorectum | 0.2 | 0.2 | -0.02 | 0.2 | <0.2 | 0.00 |
| Malignant neoplastic disease | 7.2 | 7.5 | -0.01 | 7.1 | 7.4 | -0.02 |
| Malignant tumor of breast | 2.0 | 1.7 | 0.02 | 1.9 | 1.6 | 0.02 |
| Malignant tumor of colon | 0.3 | 0.3 | 0.00 | 0.4 | 0.3 | 0.01 |
| Malignant tumor of lung | 0.4 | 0.3 | 0.02 | 0.4 | 0.3 | 0.02 |
| Malignant tumor of urinary bladder | 0.2 | <0.2 | 0.02 | 0.2 | <0.2 | 0.04 |
| Primary malignant neoplasm of prostate | 0.2 | 0.2 | -0.01 | 0.2 | <0.2 | 0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 32.6 | 32.2 | 0.01 | 32.5 | 32.9 | -0.01 |
| Antibacterials for systemic use | 50.4 | 48.5 | 0.04 | 50.1 | 47.8 | 0.04 |
| Antidepressants | 53.7 | 53.0 | 0.01 | 53.5 | 53.0 | 0.01 |
| Antiepileptics | 43.0 | 41.7 | 0.02 | 42.7 | 42.3 | 0.01 |
| Antiinflammatory and antirheumatic products | 58.2 | 60.0 | -0.04 | 58.4 | 59.8 | -0.03 |
| Antineoplastic agents | 30.7 | 41.0 | -0.22 | 33.9 | 32.0 | 0.04 |
| Antipsoriatics | 0.8 | 0.7 | 0.01 | 0.8 | 0.6 | 0.03 |
| Antithrombotic agents | 18.8 | 17.0 | 0.05 | 18.5 | 17.9 | 0.02 |
| Beta blocking agents | 24.9 | 22.9 | 0.05 | 24.4 | 23.3 | 0.03 |
| Calcium channel blockers | 20.0 | 19.2 | 0.02 | 19.7 | 20.4 | -0.02 |
| Diuretics | 33.7 | 32.1 | 0.04 | 33.3 | 32.7 | 0.02 |
| Drugs for acid related disorders | 50.0 | 51.2 | -0.02 | 50.3 | 48.0 | 0.05 |
| Drugs for obstructive airway diseases | 46.2 | 46.9 | -0.01 | 46.2 | 46.5 | -0.01 |
| Drugs used in diabetes | 18.5 | 19.6 | -0.03 | 18.4 | 19.1 | -0.02 |
| Immunosuppressants | 39.8 | 56.0 | -0.33 | 44.4 | 41.8 | 0.05 |
| Lipid modifying agents | 29.2 | 30.0 | -0.02 | 29.3 | 30.9 | -0.04 |
| Opioids | 62.1 | 62.6 | -0.01 | 62.0 | 62.7 | -0.01 |
| Psycholeptics | 49.8 | 49.5 | 0.00 | 49.3 | 50.0 | -0.01 |
| Psychostimulants, agents used for adhd and nootropics | 7.4 | 6.7 | 0.02 | 7.2 | 6.9 | 0.01 |

### S6.1.8. MDCR

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 45-49 | 0.1 | <0.1 | 0.01 | 0.1 | <0.1 | 0.01 |
| 55-59 | 0.7 | 1.0 | -0.03 | 0.8 | 0.8 | -0.01 |
| 60-64 | 1.7 | 2.1 | -0.03 | 1.8 | 2.0 | -0.02 |
| 65-69 | 23.7 | 26.3 | -0.06 | 24.4 | 24.4 | 0.00 |
| 70-74 | 28.1 | 30.9 | -0.06 | 28.6 | 28.8 | 0.00 |
| 75-79 | 22.6 | 20.6 | 0.05 | 22.2 | 21.9 | 0.01 |
| 80-84 | 14.6 | 13.2 | 0.04 | 14.3 | 14.2 | 0.00 |
| 90-94 | 1.3 | 1.2 | 0.02 | 1.3 | 1.3 | 0.00 |
| 95-99 | 0.1 | 0.1 | 0.01 | 0.1 | 0.1 | 0.01 |
| Gender: female | 72.9 | 68.6 | 0.10 | 71.8 | 71.5 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 27.5 | 26.4 | 0.02 | 27.4 | 27.2 | 0.00 |
| Attention deficit hyperactivity disorder | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.00 |
| Chronic liver disease | 2.1 | 1.9 | 0.02 | 2.1 | 1.8 | 0.02 |
| Chronic obstructive lung disease | 15.8 | 16.0 | -0.01 | 15.7 | 16.0 | -0.01 |
| Crohn's disease | 0.5 | 1.3 | -0.08 | 0.6 | 1.1 | -0.05 |
| Dementia | 2.0 | 1.7 | 0.03 | 2.0 | 1.8 | 0.01 |
| Depressive disorder | 9.2 | 9.2 | 0.00 | 9.2 | 9.2 | 0.00 |
| Diabetes mellitus | 23.1 | 22.6 | 0.01 | 22.9 | 22.7 | 0.00 |
| Gastroesophageal reflux disease | 16.5 | 16.6 | 0.00 | 16.2 | 16.5 | -0.01 |
| Gastrointestinal hemorrhage | 4.8 | 5.1 | -0.01 | 4.8 | 4.9 | -0.01 |
| Human immunodeficiency virus infection | 0.1 | <0.1 | 0.01 | 0.1 | <0.1 | 0.01 |
| Hyperlipidemia | 41.3 | 39.2 | 0.04 | 40.7 | 41.3 | -0.01 |
| Hypertensive disorder | 61.8 | 59.3 | 0.05 | 61.1 | 61.3 | 0.00 |
| Lesion of liver | 1.0 | 1.0 | -0.01 | 1.0 | 1.0 | -0.01 |
| Obesity | 5.6 | 5.4 | 0.01 | 5.5 | 5.4 | 0.01 |
| Osteoarthritis | 62.0 | 59.5 | 0.05 | 61.2 | 61.9 | -0.01 |
| Pneumonia | 9.2 | 9.2 | 0.00 | 9.2 | 9.1 | 0.00 |
| Psoriasis | 2.3 | 4.9 | -0.14 | 2.7 | 3.3 | -0.04 |
| Renal impairment | 11.3 | 10.5 | 0.03 | 11.1 | 11.2 | 0.00 |
| Rheumatoid arthritis | 88.4 | 89.7 | -0.04 | 88.9 | 89.3 | -0.02 |
| Schizophrenia | 0.1 | <0.1 | 0.00 | 0.1 | 0.1 | -0.01 |
| Ulcerative colitis | 0.6 | 2.0 | -0.12 | 0.7 | 1.2 | -0.05 |
| Urinary tract infectious disease | 13.6 | 12.7 | 0.03 | 13.5 | 12.7 | 0.02 |
| Viral hepatitis C | 0.5 | 0.6 | -0.01 | 0.5 | 0.5 | 0.00 |
| Visual system disorder | 55.3 | 55.4 | 0.00 | 55.3 | 55.1 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 10.6 | 9.5 | 0.04 | 10.4 | 10.2 | 0.01 |
| Heart failure | 10.1 | 9.9 | 0.01 | 10.0 | 10.4 | -0.01 |
| Ischemic heart disease | 10.1 | 10.1 | 0.00 | 10.1 | 10.4 | -0.01 |
| Peripheral vascular disease | 6.4 | 5.5 | 0.04 | 6.3 | 6.0 | 0.01 |
| Pulmonary embolism | 1.5 | 1.3 | 0.02 | 1.5 | 1.3 | 0.02 |
| Venous thrombosis | 3.4 | 3.4 | 0.00 | 3.3 | 3.6 | -0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 2.2 | 2.3 | 0.00 | 2.2 | 2.4 | -0.01 |
| Malignant lymphoma | 1.3 | 1.5 | -0.02 | 1.3 | 1.4 | -0.01 |
| Malignant neoplasm of anorectum | 0.4 | 0.4 | 0.00 | 0.4 | 0.4 | 0.00 |
| Malignant neoplastic disease | 18.5 | 19.8 | -0.03 | 18.7 | 19.0 | -0.01 |
| Malignant tumor of breast | 3.8 | 4.0 | -0.01 | 3.8 | 3.8 | 0.00 |
| Malignant tumor of colon | 0.8 | 0.7 | 0.02 | 0.9 | 0.7 | 0.02 |
| Malignant tumor of lung | 0.7 | 0.6 | 0.00 | 0.7 | 0.5 | 0.02 |
| Malignant tumor of urinary bladder | 1.0 | 1.1 | -0.02 | 1.0 | 0.9 | 0.00 |
| Primary malignant neoplasm of prostate | 2.4 | 2.8 | -0.02 | 2.5 | 2.4 | 0.01 |
| Medication use |  |  |  |  |  |  |
| Antibacterials for systemic use | 46.3 | 49.0 | -0.05 | 47.0 | 46.3 | 0.01 |
| Antidepressants | 31.5 | 31.4 | 0.00 | 31.7 | 31.3 | 0.01 |
| Antiepileptics | 20.1 | 21.8 | -0.04 | 20.3 | 20.6 | -0.01 |
| Antiinflammatory and antirheumatic products | 44.0 | 44.4 | -0.01 | 44.1 | 44.8 | -0.02 |
| Antineoplastic agents | 32.1 | 40.3 | -0.17 | 34.8 | 33.3 | 0.03 |
| Antipsoriatics | 1.0 | 1.4 | -0.03 | 1.0 | 1.3 | -0.02 |
| Antithrombotic agents | 22.8 | 22.1 | 0.02 | 22.6 | 22.5 | 0.00 |
| Beta blocking agents | 39.4 | 39.3 | 0.00 | 39.3 | 39.2 | 0.00 |
| Calcium channel blockers | 30.0 | 28.6 | 0.03 | 29.6 | 30.3 | -0.02 |
| Diuretics | 47.1 | 45.2 | 0.04 | 46.7 | 46.2 | 0.01 |
| Drugs for acid related disorders | 44.6 | 45.6 | -0.02 | 44.7 | 45.1 | -0.01 |
| Drugs for obstructive airway diseases | 33.2 | 32.4 | 0.02 | 33.2 | 32.8 | 0.01 |
| Drugs used in diabetes | 17.4 | 16.9 | 0.01 | 17.3 | 16.9 | 0.01 |
| Immunosuppressants | 41.2 | 54.9 | -0.28 | 45.5 | 42.8 | 0.05 |
| Lipid modifying agents | 49.8 | 48.5 | 0.03 | 49.5 | 49.4 | 0.00 |
| Opioids | 43.6 | 44.0 | -0.01 | 43.8 | 43.2 | 0.01 |
| Psycholeptics | 34.6 | 34.1 | 0.01 | 34.5 | 33.6 | 0.02 |
| Psychostimulants, agents used for adhd and nootropics | 2.0 | 2.0 | 0.00 | 2.0 | 1.9 | 0.01 |

### S6.1.9. OpenClaims

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.3 | 0.3 | -0.01 | 0.3 | 0.3 | 0.00 |
| 20-24 | 1.2 | 1.2 | -0.01 | 1.2 | 1.2 | 0.00 |
| 25-29 | 1.9 | 1.9 | 0.00 | 1.9 | 1.8 | 0.00 |
| 30-34 | 3.0 | 2.9 | 0.00 | 2.9 | 2.9 | 0.00 |
| 35-39 | 4.3 | 4.4 | -0.01 | 4.3 | 4.3 | 0.00 |
| 40-44 | 5.8 | 5.9 | 0.00 | 5.8 | 5.7 | 0.00 |
| 45-49 | 8.3 | 8.3 | 0.00 | 8.2 | 8.1 | 0.00 |
| 50-54 | 11.5 | 11.9 | -0.01 | 11.5 | 11.5 | 0.00 |
| 55-59 | 13.6 | 14.2 | -0.02 | 13.7 | 13.8 | 0.00 |
| 60-64 | 13.4 | 13.8 | -0.01 | 13.6 | 13.5 | 0.00 |
| 70-74 | 9.9 | 9.6 | 0.01 | 9.9 | 10.0 | 0.00 |
| 75-79 | 10.7 | 9.0 | 0.06 | 10.3 | 10.6 | -0.01 |
| 80-84 | 3.7 | 3.5 | 0.01 | 3.6 | 3.6 | 0.00 |
| 85-89 | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.00 |
| Gender: female | 81.0 | 73.5 | 0.18 | 79.3 | 79.1 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 20.1 | 19.2 | 0.02 | 19.9 | 19.9 | 0.00 |
| Chronic liver disease | 2.1 | 2.0 | 0.00 | 2.0 | 2.1 | 0.00 |
| Chronic obstructive lung disease | 7.6 | 7.7 | 0.00 | 7.6 | 7.8 | 0.00 |
| Crohn's disease | 0.4 | 1.6 | -0.11 | 0.5 | 0.9 | -0.04 |
| Dementia | 0.8 | 0.7 | 0.01 | 0.8 | 0.8 | 0.00 |
| Depressive disorder | 9.7 | 9.6 | 0.00 | 9.6 | 9.8 | -0.01 |
| Diabetes mellitus | 15.6 | 16.1 | -0.01 | 15.7 | 16.0 | -0.01 |
| Gastrointestinal hemorrhage | 2.4 | 2.5 | -0.01 | 2.4 | 2.4 | 0.00 |
| Hyperlipidemia | 26.0 | 25.8 | 0.01 | 26.0 | 26.4 | -0.01 |
| Hypertensive disorder | 35.0 | 34.5 | 0.01 | 34.9 | 35.2 | -0.01 |
| Lesion of liver | 0.8 | 0.7 | 0.01 | 0.8 | 0.8 | 0.00 |
| Obesity | 6.3 | 6.6 | -0.01 | 6.4 | 6.5 | 0.00 |
| Osteoarthritis | 36.0 | 37.0 | -0.02 | 36.1 | 36.8 | -0.02 |
| Psoriasis | 1.9 | 5.4 | -0.19 | 2.2 | 3.3 | -0.06 |
| Renal impairment | 6.2 | 5.5 | 0.03 | 6.1 | 6.0 | 0.00 |
| Rheumatoid arthritis | 69.0 | 69.6 | -0.01 | 69.3 | 69.8 | -0.01 |
| Schizophrenia | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.00 |
| Ulcerative colitis | 0.4 | 1.7 | -0.12 | 0.5 | 1.0 | -0.06 |
| Viral hepatitis C | 1.1 | 1.1 | 0.00 | 1.1 | 1.1 | 0.00 |
| Visual system disorder | 21.9 | 20.7 | 0.03 | 21.6 | 21.6 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 3.6 | 3.4 | 0.01 | 3.6 | 3.6 | 0.00 |
| Cerebrovascular disease | 3.4 | 2.8 | 0.03 | 3.2 | 3.3 | 0.00 |
| Coronary arteriosclerosis | 6.8 | 6.8 | 0.00 | 6.8 | 6.9 | 0.00 |
| Heart disease | 18.3 | 17.3 | 0.03 | 18.1 | 18.3 | 0.00 |
| Heart failure | 4.0 | 3.7 | 0.02 | 3.9 | 4.0 | 0.00 |
| Ischemic heart disease | 3.5 | 3.4 | 0.01 | 3.5 | 3.6 | 0.00 |
| Peripheral vascular disease | 9.7 | 9.1 | 0.02 | 9.6 | 9.6 | 0.00 |
| Venous thrombosis | 1.5 | 1.4 | 0.01 | 1.5 | 1.5 | 0.00 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 0.9 | 0.9 | 0.00 | 0.9 | 1.0 | 0.00 |
| Malignant neoplasm of anorectum | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| Malignant neoplastic disease | 7.2 | 7.2 | 0.00 | 7.2 | 7.3 | 0.00 |
| Malignant tumor of breast | 1.8 | 1.6 | 0.01 | 1.7 | 1.7 | 0.00 |
| Malignant tumor of lung | 0.3 | 0.3 | 0.00 | 0.3 | 0.3 | 0.00 |
| Malignant tumor of urinary bladder | 0.2 | 0.3 | -0.01 | 0.3 | 0.3 | 0.00 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 30.8 | 33.0 | -0.05 | 31.4 | 31.4 | 0.00 |
| Antibacterials for systemic use | 36.1 | 38.8 | -0.06 | 36.8 | 36.6 | 0.00 |
| Antidepressants | 34.5 | 35.7 | -0.03 | 34.7 | 34.8 | 0.00 |
| Antiepileptics | 24.0 | 26.4 | -0.05 | 24.5 | 24.6 | 0.00 |
| Antiinflammatory and antirheumatic products | 41.0 | 45.2 | -0.08 | 42.0 | 41.9 | 0.00 |
| Antineoplastic agents | 31.6 | 38.0 | -0.14 | 33.3 | 33.4 | 0.00 |
| Antipsoriatics | 0.7 | 1.0 | -0.03 | 0.8 | 0.9 | -0.01 |
| Beta blocking agents | 23.1 | 24.1 | -0.02 | 23.3 | 23.5 | 0.00 |
| Drugs used in diabetes | 14.0 | 15.4 | -0.04 | 14.3 | 14.6 | -0.01 |
| Immunosuppressants | 41.9 | 53.4 | -0.23 | 44.7 | 44.7 | 0.00 |
| Lipid modifying agents | 29.0 | 31.5 | -0.05 | 29.6 | 29.8 | 0.00 |
| Opioids | 34.8 | 37.8 | -0.06 | 35.4 | 35.5 | 0.00 |
| Psycholeptics | 29.5 | 30.8 | -0.03 | 29.7 | 29.9 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 4.5 | 4.8 | -0.01 | 4.5 | 4.6 | 0.00 |

### S6.1.10. Optum

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.3 | 0.4 | -0.01 | 0.3 | 0.4 | -0.02 |
| 20-24 | 1.1 | 1.1 | -0.01 | 1.1 | 1.1 | -0.01 |
| 25-29 | 1.8 | 2.0 | -0.01 | 1.8 | 1.8 | 0.00 |
| 30-34 | 3.4 | 3.2 | 0.01 | 3.3 | 3.3 | 0.00 |
| 35-39 | 4.9 | 5.2 | -0.02 | 4.9 | 4.8 | 0.00 |
| 40-44 | 6.8 | 6.7 | 0.01 | 6.8 | 6.5 | 0.01 |
| 45-49 | 8.9 | 9.1 | 0.00 | 8.9 | 8.9 | 0.00 |
| 50-54 | 11.6 | 11.6 | 0.00 | 11.6 | 11.7 | 0.00 |
| 55-59 | 12.5 | 13.3 | -0.02 | 12.7 | 12.8 | 0.00 |
| 60-64 | 11.6 | 12.6 | -0.03 | 11.9 | 11.9 | 0.00 |
| 65-69 | 11.3 | 12.2 | -0.03 | 11.6 | 11.7 | 0.00 |
| 70-74 | 10.8 | 10.6 | 0.01 | 10.9 | 10.6 | 0.01 |
| 75-79 | 7.9 | 6.9 | 0.04 | 7.7 | 7.7 | 0.00 |
| 80-84 | 5.0 | 3.8 | 0.06 | 4.7 | 4.9 | -0.01 |
| 85-89 | 1.9 | 1.3 | 0.05 | 1.8 | 1.7 | 0.01 |
| Gender: female | 79.6 | 71.9 | 0.18 | 77.6 | 77.6 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 34.7 | 33.2 | 0.03 | 34.2 | 34.2 | 0.00 |
| Attention deficit hyperactivity disorder | 1.2 | 1.1 | 0.00 | 1.2 | 1.1 | 0.00 |
| Chronic liver disease | 3.7 | 3.8 | -0.01 | 3.7 | 3.9 | -0.01 |
| Chronic obstructive lung disease | 11.2 | 10.9 | 0.01 | 11.1 | 11.2 | 0.00 |
| Crohn's disease | 0.7 | 2.4 | -0.14 | 0.9 | 1.4 | -0.05 |
| Dementia | 1.3 | 1.2 | 0.01 | 1.2 | 1.5 | -0.02 |
| Depressive disorder | 18.5 | 18.1 | 0.01 | 18.4 | 18.2 | 0.00 |
| Diabetes mellitus | 20.9 | 20.2 | 0.02 | 20.7 | 21.1 | -0.01 |
| Gastroesophageal reflux disease | 21.6 | 21.1 | 0.01 | 21.5 | 21.8 | -0.01 |
| Gastrointestinal hemorrhage | 4.0 | 4.5 | -0.02 | 4.0 | 4.1 | 0.00 |
| Human immunodeficiency virus infection | 0.2 | 0.2 | -0.01 | 0.2 | 0.2 | -0.01 |
| Hyperlipidemia | 46.8 | 45.3 | 0.03 | 46.4 | 47.1 | -0.01 |
| Hypertensive disorder | 51.4 | 51.0 | 0.01 | 51.2 | 51.9 | -0.01 |
| Lesion of liver | 1.3 | 1.2 | 0.00 | 1.3 | 1.3 | 0.00 |
| Obesity | 12.2 | 12.5 | -0.01 | 12.2 | 12.2 | 0.00 |
| Osteoarthritis | 56.4 | 55.4 | 0.02 | 56.1 | 56.7 | -0.01 |
| Pneumonia | 6.5 | 5.8 | 0.03 | 6.3 | 6.4 | 0.00 |
| Psoriasis | 3.2 | 8.0 | -0.21 | 3.9 | 4.9 | -0.05 |
| Renal impairment | 9.9 | 9.2 | 0.03 | 9.7 | 9.9 | 0.00 |
| Rheumatoid arthritis | 84.3 | 85.5 | -0.04 | 84.8 | 85.2 | -0.01 |
| Schizophrenia | 0.2 | 0.1 | 0.01 | 0.2 | 0.1 | 0.01 |
| Ulcerative colitis | 0.7 | 2.2 | -0.13 | 0.9 | 1.3 | -0.04 |
| Viral hepatitis C | 1.5 | 1.7 | -0.02 | 1.5 | 1.7 | -0.02 |
| Visual system disorder | 40.3 | 39.7 | 0.01 | 40.0 | 39.8 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 5.1 | 4.1 | 0.04 | 4.8 | 4.8 | 0.00 |
| Cerebrovascular disease | 6.3 | 5.5 | 0.03 | 6.1 | 6.0 | 0.00 |
| Coronary arteriosclerosis | 10.8 | 10.5 | 0.01 | 10.7 | 11.0 | -0.01 |
| Heart disease | 27.8 | 26.1 | 0.04 | 27.3 | 27.9 | -0.01 |
| Heart failure | 6.3 | 5.8 | 0.02 | 6.1 | 6.4 | -0.01 |
| Ischemic heart disease | 6.5 | 6.4 | 0.01 | 6.5 | 6.6 | -0.01 |
| Peripheral vascular disease | 4.7 | 4.3 | 0.02 | 4.7 | 4.6 | 0.00 |
| Pulmonary embolism | 1.2 | 0.9 | 0.03 | 1.2 | 1.1 | 0.01 |
| Venous thrombosis | 2.3 | 2.1 | 0.02 | 2.2 | 2.4 | -0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.4 | 1.2 | 0.02 | 1.4 | 1.3 | 0.01 |
| Malignant lymphoma | 0.7 | 0.8 | -0.01 | 0.7 | 0.8 | -0.01 |
| Malignant neoplasm of anorectum | 0.2 | 0.3 | -0.02 | 0.2 | 0.2 | -0.02 |
| Malignant neoplastic disease | 10.4 | 10.4 | 0.00 | 10.4 | 10.6 | -0.01 |
| Malignant tumor of breast | 2.5 | 2.0 | 0.04 | 2.4 | 2.4 | 0.00 |
| Malignant tumor of colon | 0.4 | 0.5 | -0.01 | 0.4 | 0.5 | -0.01 |
| Malignant tumor of lung | 0.4 | 0.4 | 0.01 | 0.4 | 0.4 | 0.01 |
| Malignant tumor of urinary bladder | 0.3 | 0.4 | -0.01 | 0.3 | 0.3 | 0.00 |
| Primary malignant neoplasm of prostate | 1.0 | 1.2 | -0.02 | 1.0 | 1.0 | 0.00 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 32.3 | 32.6 | -0.01 | 32.4 | 32.7 | -0.01 |
| Antibacterials for systemic use | 41.2 | 41.9 | -0.01 | 41.3 | 41.1 | 0.00 |
| Antidepressants | 35.1 | 35.2 | 0.00 | 35.0 | 34.9 | 0.00 |
| Antiinflammatory and antirheumatic products | 47.9 | 50.1 | -0.04 | 48.5 | 49.0 | -0.01 |
| Antineoplastic agents | 29.8 | 38.5 | -0.18 | 32.6 | 32.2 | 0.01 |
| Antipsoriatics | 0.9 | 1.1 | -0.03 | 0.9 | 0.9 | 0.00 |
| Antithrombotic agents | 11.8 | 10.6 | 0.04 | 11.5 | 11.4 | 0.00 |
| Beta blocking agents | 23.2 | 22.4 | 0.02 | 23.1 | 23.2 | 0.00 |
| Calcium channel blockers | 17.8 | 16.6 | 0.03 | 17.6 | 17.8 | 0.00 |
| Diuretics | 30.3 | 29.0 | 0.03 | 30.0 | 30.7 | -0.02 |
| Drugs for acid related disorders | 33.7 | 34.4 | -0.02 | 33.8 | 34.4 | -0.01 |
| Drugs for obstructive airway diseases | 29.4 | 28.9 | 0.01 | 29.2 | 29.5 | 0.00 |
| Drugs used in diabetes | 14.1 | 14.1 | 0.00 | 14.1 | 14.5 | -0.01 |
| Immunosuppressants | 38.7 | 53.1 | -0.29 | 43.0 | 42.2 | 0.02 |
| Lipid modifying agents | 31.9 | 32.1 | 0.00 | 32.0 | 32.6 | -0.01 |
| Opioids | 38.4 | 40.2 | -0.04 | 38.8 | 38.9 | 0.00 |
| Psycholeptics | 30.4 | 29.3 | 0.02 | 30.1 | 29.9 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 4.0 | 3.7 | 0.02 | 4.0 | 3.7 | 0.01 |

### S6.1.11. PanTher

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.2 | 0.3 | -0.02 | 0.2 | 0.3 | -0.01 |
| 20-24 | 1.0 | 1.0 | 0.00 | 1.0 | 1.0 | 0.00 |
| 25-29 | 1.8 | 1.9 | -0.01 | 1.8 | 1.9 | -0.01 |
| 30-34 | 3.1 | 3.0 | 0.00 | 3.1 | 3.0 | 0.00 |
| 35-39 | 4.2 | 4.6 | -0.02 | 4.2 | 4.2 | 0.00 |
| 40-44 | 5.9 | 5.8 | 0.01 | 5.9 | 5.6 | 0.01 |
| 45-49 | 7.9 | 8.2 | -0.01 | 7.9 | 7.9 | 0.00 |
| 50-54 | 11.5 | 11.9 | -0.01 | 11.6 | 11.5 | 0.00 |
| 55-59 | 13.8 | 14.7 | -0.03 | 14.0 | 14.3 | -0.01 |
| 60-64 | 13.3 | 13.9 | -0.02 | 13.5 | 13.4 | 0.00 |
| 65-69 | 12.1 | 12.7 | -0.02 | 12.3 | 12.6 | -0.01 |
| 70-74 | 10.1 | 9.6 | 0.02 | 10.0 | 9.9 | 0.00 |
| 75-79 | 8.1 | 6.9 | 0.04 | 7.8 | 7.9 | 0.00 |
| 80-84 | 5.5 | 4.2 | 0.06 | 5.2 | 5.3 | -0.01 |
| 85-89 | 1.6 | 1.2 | 0.03 | 1.5 | 1.4 | 0.00 |
| Gender: female | 80.1 | 72.4 | 0.18 | 78.2 | 78.6 | -0.01 |
| Race |  |  |  |  |  |  |
| race = Asian | 1.5 | 1.1 | 0.04 | 1.5 | 1.4 | 0.01 |
| race = Black or African American | 10.1 | 8.4 | 0.06 | 9.7 | 9.6 | 0.00 |
| race = White | 81.4 | 83.3 | -0.05 | 81.8 | 81.9 | 0.00 |
| Ethnicity |  |  |  |  |  |  |
| ethnicity = Hispanic or Latino | 5.3 | 6.1 | -0.04 | 5.4 | 5.4 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 17.9 | 18.3 | -0.01 | 17.9 | 18.1 | 0.00 |
| Attention deficit hyperactivity disorder | 1.0 | 0.8 | 0.01 | 0.9 | 0.8 | 0.01 |
| Chronic liver disease | 2.7 | 3.0 | -0.02 | 2.8 | 2.9 | -0.01 |
| Chronic obstructive lung disease | 8.5 | 9.2 | -0.03 | 8.6 | 8.9 | -0.01 |
| Crohn's disease | 0.5 | 1.6 | -0.12 | 0.6 | 0.9 | -0.04 |
| Dementia | 1.1 | 0.9 | 0.02 | 1.0 | 1.1 | -0.01 |
| Depressive disorder | 15.7 | 15.4 | 0.01 | 15.6 | 15.7 | 0.00 |
| Diabetes mellitus | 14.9 | 15.0 | 0.00 | 15.0 | 15.3 | -0.01 |
| Gastroesophageal reflux disease | 18.4 | 18.1 | 0.01 | 18.3 | 18.1 | 0.00 |
| Gastrointestinal hemorrhage | 2.1 | 2.4 | -0.02 | 2.1 | 2.2 | 0.00 |
| Human immunodeficiency virus infection | 0.1 | 0.2 | -0.01 | 0.1 | 0.2 | -0.01 |
| Hyperlipidemia | 30.4 | 31.1 | -0.02 | 30.5 | 30.6 | 0.00 |
| Hypertensive disorder | 38.9 | 38.6 | 0.01 | 38.8 | 39.2 | -0.01 |
| Lesion of liver | 1.1 | 0.9 | 0.02 | 1.0 | 1.0 | 0.01 |
| Obesity | 11.3 | 12.1 | -0.03 | 11.4 | 11.6 | -0.01 |
| Osteoarthritis | 35.1 | 36.2 | -0.02 | 35.3 | 35.7 | -0.01 |
| Pneumonia | 5.0 | 5.1 | 0.00 | 5.0 | 5.0 | 0.00 |
| Psoriasis | 1.7 | 4.4 | -0.16 | 2.1 | 2.7 | -0.04 |
| Renal impairment | 7.7 | 6.7 | 0.04 | 7.4 | 7.7 | -0.01 |
| Rheumatoid arthritis | 84.8 | 84.7 | 0.00 | 84.9 | 85.5 | -0.02 |
| Ulcerative colitis | 0.4 | 1.5 | -0.11 | 0.5 | 0.8 | -0.04 |
| Urinary tract infectious disease | 7.6 | 6.3 | 0.05 | 7.2 | 7.1 | 0.00 |
| Viral hepatitis C | 1.2 | 1.5 | -0.02 | 1.3 | 1.4 | -0.01 |
| Visual system disorder | 13.8 | 13.6 | 0.00 | 13.7 | 13.4 | 0.01 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Coronary arteriosclerosis | 8.3 | 8.5 | 0.00 | 8.3 | 8.5 | -0.01 |
| Heart disease | 20.9 | 20.2 | 0.02 | 20.7 | 21.1 | -0.01 |
| Heart failure | 4.7 | 4.4 | 0.02 | 4.7 | 4.9 | -0.01 |
| Ischemic heart disease | 4.4 | 4.5 | 0.00 | 4.4 | 4.5 | 0.00 |
| Peripheral vascular disease | 2.6 | 2.4 | 0.01 | 2.6 | 2.5 | 0.00 |
| Pulmonary embolism | 1.0 | 1.0 | 0.00 | 1.0 | 1.0 | -0.01 |
| Venous thrombosis | 1.9 | 2.0 | -0.01 | 1.9 | 2.0 | -0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.1 | 1.2 | -0.01 | 1.1 | 1.2 | -0.01 |
| Malignant lymphoma | 0.6 | 0.7 | -0.01 | 0.6 | 0.7 | 0.00 |
| Malignant neoplasm of anorectum | 0.2 | 0.2 | 0.01 | 0.2 | 0.2 | 0.01 |
| Malignant neoplastic disease | 8.5 | 8.8 | -0.01 | 8.5 | 8.8 | -0.01 |
| Malignant tumor of breast | 1.9 | 1.7 | 0.02 | 1.9 | 1.9 | 0.00 |
| Malignant tumor of colon | 0.4 | 0.3 | 0.00 | 0.4 | 0.4 | 0.00 |
| Malignant tumor of lung | 0.4 | 0.4 | -0.01 | 0.4 | 0.4 | -0.01 |
| Malignant tumor of urinary bladder | 0.2 | 0.4 | -0.03 | 0.2 | 0.3 | -0.02 |
| Primary malignant neoplasm of prostate | 0.6 | 0.8 | -0.03 | 0.7 | 0.7 | 0.00 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 30.6 | 31.6 | -0.02 | 30.8 | 31.3 | -0.01 |
| Antibacterials for systemic use | 28.1 | 29.8 | -0.04 | 28.3 | 28.2 | 0.00 |
| Antidepressants | 36.0 | 35.6 | 0.01 | 35.8 | 36.3 | -0.01 |
| Antiepileptics | 24.0 | 24.8 | -0.02 | 24.2 | 24.4 | -0.01 |
| Antiinflammatory and antirheumatic products | 43.7 | 47.2 | -0.07 | 44.5 | 44.6 | 0.00 |
| Antineoplastic agents | 34.4 | 38.1 | -0.08 | 35.4 | 36.4 | -0.02 |
| Antipsoriatics | 0.6 | 0.7 | -0.01 | 0.6 | 0.6 | 0.00 |
| Antithrombotic agents | 33.0 | 31.7 | 0.03 | 32.6 | 33.2 | -0.01 |
| Beta blocking agents | 26.7 | 27.0 | -0.01 | 26.8 | 27.2 | -0.01 |
| Calcium channel blockers | 17.2 | 16.7 | 0.01 | 17.1 | 17.5 | -0.01 |
| Diuretics | 29.2 | 28.3 | 0.02 | 29.1 | 29.4 | -0.01 |
| Drugs for acid related disorders | 45.1 | 45.5 | -0.01 | 45.1 | 45.4 | 0.00 |
| Drugs for obstructive airway diseases | 34.5 | 35.2 | -0.02 | 34.6 | 35.0 | -0.01 |
| Drugs used in diabetes | 15.1 | 15.7 | -0.02 | 15.3 | 15.8 | -0.01 |
| Immunosuppressants | 47.1 | 56.1 | -0.18 | 49.2 | 50.2 | -0.02 |
| Lipid modifying agents | 30.2 | 31.7 | -0.03 | 30.6 | 31.0 | -0.01 |
| Opioids | 39.3 | 41.1 | -0.04 | 39.6 | 40.3 | -0.01 |
| Psycholeptics | 35.2 | 35.0 | 0.00 | 35.1 | 35.5 | -0.01 |
| Psychostimulants, agents used for adhd and nootropics | 4.3 | 4.0 | 0.01 | 4.2 | 4.1 | 0.01 |

### S6.1.12. SIDIAP

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | 0.6 | <1.3 | -0.02 | 0.6 | <1.0 | -0.02 |
| 25-29 | 2.2 | 2.9 | -0.05 | 2.0 | 4.6 | -0.15 |
| 30-34 | 4.4 | 4.7 | -0.02 | 4.6 | 4.3 | 0.01 |
| 35-39 | 7.1 | 9.7 | -0.09 | 7.2 | 13.3 | -0.20 |
| 40-44 | 8.0 | 6.8 | 0.05 | 8.3 | 5.6 | 0.11 |
| 45-49 | 7.5 | 9.4 | -0.07 | 7.4 | 7.3 | 0.00 |
| 50-54 | 10.1 | 12.3 | -0.07 | 10.5 | 7.7 | 0.10 |
| 55-59 | 11.5 | 9.4 | 0.07 | 11.5 | 9.5 | 0.06 |
| 60-64 | 11.2 | 10.8 | 0.02 | 10.9 | 11.1 | -0.01 |
| 65-69 | 10.8 | 10.2 | 0.02 | 11.1 | 8.7 | 0.08 |
| 70-74 | 9.9 | 6.8 | 0.11 | 9.6 | 9.6 | 0.00 |
| 75-79 | 7.5 | 9.4 | -0.07 | 7.6 | 9.1 | -0.05 |
| 80-84 | 6.2 | 5.8 | 0.02 | 6.0 | 8.0 | -0.08 |
| 85-89 | 2.0 | <1.3 | 0.13 | 2.0 | <1.0 | 0.16 |
| 90-94 | 0.6 | <1.3 | 0.06 | 0.6 | <1.0 | 0.06 |
| Gender: female | 79.2 | 66.7 | 0.29 | 75.9 | 79.8 | -0.09 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 17.9 | 17.3 | 0.02 | 17.4 | 26.6 | -0.22 |
| Chronic liver disease | 1.0 | <1.3 | -0.01 | 1.0 | <1.0 | 0.04 |
| Chronic obstructive lung disease | 2.6 | 2.6 | 0.00 | 2.4 | 1.7 | 0.05 |
| Depressive disorder | 3.0 | 4.7 | -0.09 | 3.1 | 9.0 | -0.25 |
| Diabetes mellitus | 2.9 | 3.1 | -0.02 | 2.8 | 2.3 | 0.03 |
| Gastroesophageal reflux disease | 1.0 | 1.3 | -0.02 | 1.1 | 1.5 | -0.04 |
| Gastrointestinal hemorrhage | 2.7 | 3.7 | -0.05 | 2.9 | 3.6 | -0.04 |
| Hyperlipidemia | 4.3 | 3.4 | 0.04 | 4.0 | 7.8 | -0.16 |
| Hypertensive disorder | 5.3 | 6.6 | -0.05 | 5.7 | 7.9 | -0.09 |
| Obesity | 4.8 | 4.2 | 0.03 | 4.6 | 3.3 | 0.07 |
| Osteoarthritis | 3.0 | 3.1 | -0.01 | 3.2 | 4.9 | -0.09 |
| Pneumonia | 2.0 | 2.4 | -0.02 | 2.2 | 7.3 | -0.24 |
| Psoriasis | 0.7 | 2.1 | -0.12 | 0.6 | 2.0 | -0.12 |
| Renal impairment | 1.8 | 2.4 | -0.04 | 2.0 | 2.1 | -0.01 |
| Rheumatoid arthritis | 35.6 | 26.5 | 0.20 | 33.2 | 42.3 | -0.19 |
| Urinary tract infectious disease | 7.5 | 5.8 | 0.07 | 7.4 | 6.0 | 0.06 |
| Viral hepatitis C | 0.9 | <1.3 | 0.04 | 0.9 | <1.0 | 0.07 |
| Visual system disorder | 16.0 | 17.3 | -0.03 | 15.6 | 19.5 | -0.10 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 0.6 | 1.3 | -0.08 | 0.5 | 4.1 | -0.24 |
| Cerebrovascular disease | 2.2 | <1.3 | 0.09 | 2.2 | <1.0 | 0.13 |
| Heart disease | 7.2 | 6.8 | 0.02 | 7.0 | 9.2 | -0.08 |
| Heart failure | 1.1 | <1.3 | 0.01 | 1.1 | 3.3 | -0.15 |
| Ischemic heart disease | 1.6 | <1.3 | 0.10 | 1.5 | <1.0 | 0.13 |
| Peripheral vascular disease | 3.6 | 2.4 | 0.07 | 3.8 | 1.7 | 0.13 |
| Pulmonary embolism | 0.4 | <1.3 | 0.02 | 0.4 | <1.0 | 0.04 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | <0.4 | <1.3 | -0.08 | <0.4 | <1.0 | -0.06 |
| Malignant neoplastic disease | 3.0 | 3.4 | -0.02 | 3.0 | 2.4 | 0.04 |
| Malignant tumor of breast | 0.4 | <1.3 | -0.02 | <0.4 | <1.0 | -0.02 |
| Malignant tumor of colon | <0.4 | <1.3 | 0.01 | <0.4 | <1.0 | 0.04 |
| Malignant tumor of lung | <0.4 | <1.3 | -0.04 | <0.4 | <1.0 | -0.03 |
| Malignant tumor of urinary bladder | <0.4 | <1.3 | -0.05 | <0.4 | <1.0 | -0.02 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 26.2 | 30.7 | -0.10 | 27.2 | 27.0 | 0.00 |
| Antibacterials for systemic use | 17.4 | 17.8 | -0.01 | 17.1 | 19.2 | -0.05 |
| Antidepressants | 21.9 | 22.8 | -0.02 | 21.9 | 27.7 | -0.13 |
| Antiepileptics | 9.9 | 11.8 | -0.06 | 9.9 | 11.9 | -0.06 |
| Antiinflammatory and antirheumatic products | 70.0 | 71.7 | -0.04 | 69.8 | 68.2 | 0.03 |
| Antineoplastic agents | 21.3 | 21.0 | 0.01 | 21.3 | 20.6 | 0.02 |
| Antipsoriatics | 1.3 | 1.6 | -0.02 | 1.4 | <1.0 | 0.04 |
| Antithrombotic agents | 17.4 | 16.3 | 0.03 | 17.3 | 15.6 | 0.05 |
| Beta blocking agents | 11.2 | 10.5 | 0.02 | 11.5 | 10.1 | 0.04 |
| Calcium channel blockers | 10.3 | 6.0 | 0.16 | 9.8 | 9.7 | 0.00 |
| Diuretics | 22.9 | 21.8 | 0.03 | 22.6 | 19.2 | 0.08 |
| Drugs for acid related disorders | 77.9 | 83.5 | -0.14 | 78.8 | 78.0 | 0.02 |
| Drugs for obstructive airway diseases | 24.7 | 25.5 | -0.02 | 24.2 | 21.1 | 0.07 |
| Drugs used in diabetes | 10.5 | 10.8 | -0.01 | 10.6 | 9.2 | 0.05 |
| Immunosuppressants | 32.6 | 36.2 | -0.08 | 33.1 | 30.3 | 0.06 |
| Lipid modifying agents | 25.3 | 21.5 | 0.09 | 24.5 | 23.3 | 0.03 |
| Opioids | 22.6 | 23.4 | -0.02 | 22.9 | 23.5 | -0.01 |
| Psycholeptics | 36.3 | 40.7 | -0.09 | 37.1 | 44.2 | -0.14 |
| Psychostimulants, agents used for adhd and nootropics | 1.3 | 3.1 | -0.13 | 1.3 | 2.0 | -0.05 |

### S6.1.13. VA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | HCQ | SSZ |  | HCQ | SSZ |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | 0.1 | 0.1 | 0.00 | 0.1 | 0.2 | -0.02 |
| 25-29 | 0.6 | 0.6 | 0.00 | 0.6 | 0.6 | -0.01 |
| 30-34 | 1.2 | 1.0 | 0.02 | 1.1 | 1.1 | 0.00 |
| 35-39 | 1.6 | 1.7 | 0.00 | 1.5 | 1.7 | -0.02 |
| 40-44 | 2.7 | 3.0 | -0.02 | 2.7 | 2.8 | -0.01 |
| 45-49 | 5.1 | 5.1 | 0.00 | 5.1 | 5.0 | 0.00 |
| 50-54 | 8.4 | 9.7 | -0.05 | 8.8 | 8.7 | 0.00 |
| 55-59 | 12.8 | 14.5 | -0.05 | 13.4 | 13.1 | 0.01 |
| 60-64 | 17.1 | 17.8 | -0.02 | 17.3 | 17.6 | -0.01 |
| 65-69 | 16.9 | 17.0 | 0.00 | 17.1 | 17.0 | 0.00 |
| 70-74 | 13.8 | 13.7 | 0.00 | 13.9 | 13.7 | 0.00 |
| 75-79 | 10.0 | 9.1 | 0.03 | 9.8 | 9.7 | 0.00 |
| 80-84 | 6.5 | 4.7 | 0.08 | 5.9 | 6.2 | -0.01 |
| 85-89 | 2.5 | 1.6 | 0.06 | 2.2 | 2.2 | 0.00 |
| 90-94 | 0.5 | 0.3 | 0.03 | 0.5 | 0.3 | 0.03 |
| Gender: female | 14.5 | 10.4 | 0.13 | 13.2 | 13.1 | 0.00 |
| Race |  |  |  |  |  |  |
| race = Asian | 0.5 | 0.4 | 0.00 | 0.5 | 0.4 | 0.01 |
| race = Black or African American | 14.4 | 12.9 | 0.04 | 13.9 | 13.6 | 0.01 |
| race = White | 73.6 | 74.6 | -0.02 | 73.9 | 74.1 | 0.00 |
| race = Unknown | 9.9 | 10.4 | -0.02 | 10.1 | 10.2 | 0.00 |
| race = Native Hawaiian or Other Pacific Islander | 0.7 | 0.8 | -0.01 | 0.7 | 0.8 | -0.02 |
| race = American Indian or Alaska Native | 0.9 | 0.9 | 0.00 | 0.9 | 0.8 | 0.01 |
| Ethnicity |  |  |  |  |  |  |
| ethnicity = Hispanic or Latino | 4.8 | 4.9 | 0.00 | 4.9 | 4.7 | 0.00 |
| ethnicity = Not Hispanic or Latino | 89.3 | 88.6 | 0.02 | 89.0 | 89.1 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 11.4 | 12.3 | -0.03 | 11.8 | 11.3 | 0.02 |
| Attention deficit hyperactivity disorder | 0.4 | 0.4 | 0.00 | 0.4 | 0.5 | -0.01 |
| Chronic liver disease | 3.4 | 3.4 | 0.00 | 3.5 | 3.6 | 0.00 |
| Crohn's disease | 0.3 | 0.9 | -0.07 | 0.4 | 0.6 | -0.02 |
| Dementia | 1.2 | 1.0 | 0.02 | 1.1 | 1.1 | 0.00 |
| Depressive disorder | 21.9 | 21.6 | 0.01 | 21.8 | 21.6 | 0.00 |
| Diabetes mellitus | 24.5 | 23.8 | 0.02 | 24.1 | 24.1 | 0.00 |
| Gastroesophageal reflux disease | 5.8 | 5.4 | 0.01 | 5.6 | 5.5 | 0.01 |
| Gastrointestinal hemorrhage | 2.1 | 2.8 | -0.04 | 2.3 | 2.3 | 0.00 |
| Human immunodeficiency virus infection | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.00 |
| Hypertensive disorder | 58.1 | 57.6 | 0.01 | 58.0 | 58.0 | 0.00 |
| Lesion of liver | 1.4 | 1.4 | 0.00 | 1.4 | 1.4 | 0.01 |
| Obesity | 14.3 | 14.3 | 0.00 | 14.2 | 14.3 | 0.00 |
| Psoriasis | 2.2 | 7.0 | -0.23 | 3.2 | 4.1 | -0.05 |
| Renal impairment | 7.2 | 6.6 | 0.02 | 7.0 | 7.1 | 0.00 |
| Rheumatoid arthritis | 90.4 | 89.6 | 0.02 | 90.5 | 90.2 | 0.01 |
| Schizophrenia | 0.6 | 0.7 | -0.01 | 0.6 | 0.6 | 0.01 |
| Ulcerative colitis | 0.4 | 1.0 | -0.06 | 0.5 | 0.7 | -0.02 |
| Urinary tract infectious disease | 3.5 | 3.1 | 0.02 | 3.4 | 3.1 | 0.02 |
| Viral hepatitis C | 3.7 | 3.7 | 0.00 | 3.7 | 3.8 | 0.00 |
| Visual system disorder | 38.5 | 41.9 | -0.07 | 39.5 | 38.7 | 0.02 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 6.1 | 5.4 | 0.03 | 5.9 | 5.8 | 0.00 |
| Cerebrovascular disease | 4.3 | 4.0 | 0.02 | 4.3 | 4.3 | 0.00 |
| Coronary arteriosclerosis | 14.7 | 15.1 | -0.01 | 14.8 | 15.2 | -0.01 |
| Heart disease | 30.5 | 30.4 | 0.00 | 30.6 | 31.1 | -0.01 |
| Heart failure | 5.9 | 6.1 | -0.01 | 5.9 | 6.1 | -0.01 |
| Ischemic heart disease | 11.0 | 11.2 | 0.00 | 11.1 | 11.1 | 0.00 |
| Pulmonary embolism | 0.7 | 0.8 | 0.00 | 0.7 | 0.8 | -0.01 |
| Venous thrombosis | 1.4 | 1.3 | 0.01 | 1.4 | 1.3 | 0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.1 | 1.0 | 0.02 | 1.1 | 1.0 | 0.01 |
| Malignant lymphoma | 0.8 | 0.6 | 0.01 | 0.8 | 0.6 | 0.02 |
| Malignant neoplasm of anorectum | 0.1 | 0.1 | 0.00 | 0.2 | 0.1 | 0.01 |
| Malignant tumor of breast | 0.4 | 0.2 | 0.02 | 0.3 | 0.3 | 0.01 |
| Malignant tumor of colon | 0.6 | 0.6 | 0.00 | 0.6 | 0.6 | 0.00 |
| Malignant tumor of lung | 0.3 | 0.4 | -0.01 | 0.4 | 0.4 | 0.00 |
| Malignant tumor of urinary bladder | 0.8 | 0.8 | -0.01 | 0.7 | 0.9 | -0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 38.5 | 39.2 | -0.01 | 38.8 | 39.0 | 0.00 |
| Antibacterials for systemic use | 22.8 | 25.3 | -0.06 | 23.8 | 23.2 | 0.01 |
| Antidepressants | 35.0 | 36.1 | -0.02 | 35.3 | 34.8 | 0.01 |
| Antiepileptics | 21.3 | 20.9 | 0.01 | 21.1 | 21.0 | 0.00 |
| Antiinflammatory and antirheumatic products | 47.8 | 52.1 | -0.09 | 49.2 | 47.8 | 0.03 |
| Antineoplastic agents | 36.8 | 41.7 | -0.10 | 38.8 | 38.2 | 0.01 |
| Antipsoriatics | 1.0 | 2.0 | -0.09 | 1.1 | 1.5 | -0.03 |
| Antithrombotic agents | 28.6 | 28.9 | -0.01 | 28.8 | 28.6 | 0.01 |
| Beta blocking agents | 32.0 | 32.2 | 0.00 | 32.0 | 32.1 | 0.00 |
| Calcium channel blockers | 21.8 | 21.8 | 0.00 | 21.9 | 22.3 | -0.01 |
| Diuretics | 32.8 | 33.5 | -0.02 | 33.1 | 33.2 | 0.00 |
| Drugs for acid related disorders | 52.3 | 55.9 | -0.07 | 53.5 | 52.8 | 0.01 |
| Drugs for obstructive airway diseases | 27.8 | 28.9 | -0.02 | 28.2 | 28.0 | 0.00 |
| Drugs used in diabetes | 19.7 | 19.4 | 0.01 | 19.4 | 19.6 | 0.00 |
| Immunosuppressants | 44.0 | 51.9 | -0.16 | 47.0 | 46.3 | 0.01 |
| Lipid modifying agents | 45.7 | 45.1 | 0.01 | 45.5 | 45.6 | 0.00 |
| Opioids | 31.0 | 34.1 | -0.06 | 32.0 | 31.5 | 0.01 |
| Psycholeptics | 23.7 | 24.8 | -0.03 | 24.0 | 24.0 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 1.8 | 1.6 | 0.02 | 1.8 | 1.6 | 0.01 |

## S6.2. AZM vs AMX

### S6.2.1. AmbEMR

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | 0.8 | 0.7 | 0.01 | 0.8 | 0.7 | 0.01 |
| 25-29 | 1.2 | 1.3 | -0.01 | 1.3 | 1.2 | 0.00 |
| 30-34 | 2.5 | 2.3 | 0.02 | 2.6 | 2.3 | 0.02 |
| 35-39 | 3.5 | 3.9 | -0.02 | 3.7 | 3.7 | 0.00 |
| 40-44 | 5.8 | 5.1 | 0.03 | 5.8 | 5.4 | 0.02 |
| 45-49 | 7.5 | 7.3 | 0.01 | 7.7 | 7.3 | 0.01 |
| 50-54 | 10.1 | 10.4 | -0.01 | 10.1 | 10.5 | -0.01 |
| 55-59 | 13.4 | 13.7 | -0.01 | 13.5 | 14.0 | -0.01 |
| 60-64 | 14.1 | 14.4 | -0.01 | 13.9 | 14.2 | -0.01 |
| 65-69 | 13.8 | 14.1 | -0.01 | 13.7 | 14.1 | -0.01 |
| 70-74 | 12.7 | 12.1 | 0.02 | 12.2 | 11.9 | 0.01 |
| 75-79 | 10.6 | 10.1 | 0.02 | 10.6 | 10.3 | 0.01 |
| 80-84 | 3.9 | 4.5 | -0.03 | 4.1 | 4.2 | -0.01 |
| Gender: female | 83.2 | 82.5 | 0.02 | 83.2 | 82.9 | 0.01 |
| Race |  |  |  |  |  |  |
| race = Asian | 1.5 | 1.1 | 0.03 | 1.4 | 1.1 | 0.02 |
| race = White | 75.6 | 75.3 | 0.01 | 75.7 | 75.6 | 0.00 |
| race = African American | 8.2 | 8.1 | 0.00 | 8.2 | 8.1 | 0.00 |
| Ethnicity |  |  |  |  |  |  |
| ethnicity = Hispanic or Latino | 1.5 | 1.2 | 0.03 | 1.4 | 1.2 | 0.02 |
| ethnicity = Not Hispanic or Latino | 85.2 | 84.5 | 0.02 | 85.3 | 84.8 | 0.02 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 43.3 | 34.9 | 0.17 | 39.9 | 40.4 | -0.01 |
| Attention deficit hyperactivity disorder | 0.7 | 0.9 | -0.03 | 0.7 | 0.9 | -0.03 |
| Chronic liver disease | 1.5 | 1.7 | -0.02 | 1.5 | 1.7 | -0.02 |
| Chronic obstructive lung disease | 10.6 | 8.4 | 0.07 | 9.2 | 10.4 | -0.04 |
| Crohn's disease | 0.4 | 0.6 | -0.02 | 0.4 | 0.5 | -0.01 |
| Dementia | 0.7 | 0.9 | -0.03 | 0.7 | 0.9 | -0.02 |
| Depressive disorder | 19.4 | 19.5 | 0.00 | 19.8 | 19.7 | 0.00 |
| Diabetes mellitus | 14.0 | 15.1 | -0.03 | 14.6 | 14.9 | -0.01 |
| Gastroesophageal reflux disease | 20.6 | 21.1 | -0.01 | 20.9 | 21.3 | -0.01 |
| Gastrointestinal hemorrhage | 1.6 | 1.8 | -0.01 | 1.7 | 1.7 | 0.00 |
| Human immunodeficiency virus infection | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| Hyperlipidemia | 33.2 | 32.8 | 0.01 | 33.2 | 32.8 | 0.01 |
| Hypertensive disorder | 41.4 | 42.2 | -0.02 | 41.8 | 41.6 | 0.00 |
| Lesion of liver | 0.8 | 1.1 | -0.03 | 0.9 | 1.1 | -0.02 |
| Obesity | 11.7 | 11.6 | 0.00 | 12.0 | 11.8 | 0.00 |
| Osteoarthritis | 28.3 | 29.7 | -0.03 | 28.8 | 28.8 | 0.00 |
| Pneumonia | 6.5 | 5.0 | 0.06 | 5.7 | 6.5 | -0.03 |
| Psoriasis | 1.6 | 1.8 | -0.02 | 1.6 | 1.7 | -0.01 |
| Renal impairment | 6.5 | 7.3 | -0.03 | 6.7 | 7.2 | -0.02 |
| Rheumatoid arthritis | 80.0 | 78.7 | 0.03 | 79.5 | 79.2 | 0.01 |
| Schizophrenia | 0.1 | 0.1 | 0.01 | 0.1 | 0.1 | 0.01 |
| Ulcerative colitis | 0.5 | 0.4 | 0.02 | 0.6 | 0.4 | 0.04 |
| Urinary tract infectious disease | 9.5 | 11.9 | -0.08 | 10.4 | 10.5 | -0.01 |
| Viral hepatitis C | 0.8 | 1.1 | -0.03 | 0.8 | 1.0 | -0.02 |
| Visual system disorder | 12.0 | 12.4 | -0.01 | 12.2 | 12.2 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 3.3 | 4.0 | -0.04 | 3.4 | 3.9 | -0.03 |
| Cerebrovascular disease | 3.5 | 3.7 | -0.01 | 3.6 | 3.4 | 0.01 |
| Heart disease | 17.5 | 18.4 | -0.02 | 17.7 | 18.2 | -0.01 |
| Heart failure | 3.5 | 3.6 | -0.01 | 3.4 | 3.7 | -0.02 |
| Ischemic heart disease | 1.9 | 2.0 | 0.00 | 2.0 | 1.9 | 0.01 |
| Peripheral vascular disease | 2.0 | 2.2 | -0.01 | 2.0 | 2.0 | 0.00 |
| Pulmonary embolism | 1.0 | 1.0 | 0.00 | 1.0 | 1.0 | 0.00 |
| Venous thrombosis | 1.6 | 1.9 | -0.03 | 1.7 | 1.8 | -0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 0.6 | 0.4 | 0.02 | 0.5 | 0.5 | 0.00 |
| Malignant neoplastic disease | 7.4 | 7.7 | -0.01 | 7.4 | 7.7 | -0.01 |
| Malignant tumor of breast | 1.6 | 1.6 | 0.00 | 1.6 | 1.6 | 0.00 |
| Malignant tumor of lung | 0.5 | 0.4 | 0.02 | 0.4 | 0.5 | -0.01 |
| Malignant tumor of urinary bladder | 0.2 | 0.3 | -0.01 | 0.2 | 0.3 | -0.01 |
| Primary malignant neoplasm of prostate | 0.3 | 0.2 | 0.03 | 0.3 | 0.2 | 0.02 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 35.5 | 36.7 | -0.02 | 35.8 | 36.0 | 0.00 |
| Antibacterials for systemic use | 41.3 | 44.0 | -0.05 | 42.9 | 43.4 | -0.01 |
| Antidepressants | 43.1 | 44.5 | -0.03 | 44.2 | 44.2 | 0.00 |
| Antiepileptics | 28.9 | 30.3 | -0.03 | 30.1 | 29.8 | 0.01 |
| Antiinflammatory and antirheumatic products | 46.2 | 47.0 | -0.02 | 46.7 | 46.7 | 0.00 |
| Antineoplastic agents | 39.6 | 38.0 | 0.03 | 38.4 | 39.1 | -0.02 |
| Antipsoriatics | 0.9 | 0.9 | 0.00 | 1.0 | 0.8 | 0.02 |
| Antithrombotic agents | 25.1 | 27.4 | -0.05 | 25.9 | 26.1 | 0.00 |
| Beta blocking agents | 26.4 | 28.5 | -0.05 | 27.4 | 27.6 | 0.00 |
| Calcium channel blockers | 19.5 | 20.2 | -0.02 | 19.9 | 19.9 | 0.00 |
| Diuretics | 35.3 | 35.5 | 0.00 | 35.6 | 35.4 | 0.00 |
| Drugs for acid related disorders | 49.4 | 51.4 | -0.04 | 50.5 | 50.9 | -0.01 |
| Drugs for obstructive airway diseases | 53.3 | 45.1 | 0.16 | 49.3 | 50.8 | -0.03 |
| Drugs used in diabetes | 14.6 | 15.9 | -0.04 | 15.2 | 15.4 | 0.00 |
| Immunosuppressants | 55.9 | 54.7 | 0.02 | 55.1 | 55.5 | -0.01 |
| Lipid modifying agents | 34.4 | 34.8 | -0.01 | 34.9 | 34.5 | 0.01 |
| Opioids | 34.8 | 36.9 | -0.04 | 36.1 | 35.4 | 0.02 |
| Psychostimulants, agents used for adhd and nootropics | 5.4 | 5.4 | 0.00 | 5.5 | 5.4 | 0.01 |

### S6.2.2. CCAE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.5 | 0.4 | 0.00 | 0.5 | 0.5 | 0.00 |
| 20-24 | 1.4 | 1.3 | 0.01 | 1.4 | 1.4 | 0.00 |
| 25-29 | 2.2 | 2.1 | 0.01 | 2.2 | 2.2 | 0.00 |
| 30-34 | 4.0 | 3.7 | 0.02 | 4.0 | 3.9 | 0.01 |
| 35-39 | 6.8 | 6.5 | 0.02 | 6.8 | 6.7 | 0.00 |
| 40-44 | 9.5 | 8.9 | 0.02 | 9.3 | 9.3 | 0.00 |
| 45-49 | 13.1 | 13.2 | 0.00 | 13.2 | 13.3 | 0.00 |
| 50-54 | 18.3 | 17.9 | 0.01 | 18.1 | 18.0 | 0.00 |
| 55-59 | 21.5 | 22.0 | -0.01 | 21.5 | 21.8 | -0.01 |
| 60-64 | 20.6 | 21.8 | -0.03 | 21.1 | 21.1 | 0.00 |
| 65-69 | 2.0 | 2.1 | 0.00 | 2.0 | 2.0 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 62.5 | 50.7 | 0.24 | 58.0 | 57.5 | 0.01 |
| Attention deficit hyperactivity disorder | 1.4 | 1.5 | -0.01 | 1.4 | 1.5 | 0.00 |
| Chronic liver disease | 2.7 | 2.9 | -0.01 | 2.7 | 2.8 | -0.01 |
| Chronic obstructive lung disease | 5.6 | 4.4 | 0.06 | 5.0 | 5.2 | -0.01 |
| Dementia | 0.3 | 0.2 | 0.01 | 0.3 | 0.2 | 0.01 |
| Depressive disorder | 14.7 | 14.7 | 0.00 | 14.7 | 14.8 | 0.00 |
| Diabetes mellitus | 12.7 | 13.3 | -0.02 | 13.2 | 13.1 | 0.00 |
| Gastroesophageal reflux disease | 16.5 | 16.8 | -0.01 | 16.7 | 16.8 | 0.00 |
| Human immunodeficiency virus infection | 0.1 | 0.1 | 0.01 | 0.1 | 0.1 | 0.01 |
| Hyperlipidemia | 30.4 | 30.4 | 0.00 | 30.4 | 30.3 | 0.00 |
| Lesion of liver | 0.8 | 0.8 | -0.01 | 0.8 | 0.8 | 0.00 |
| Obesity | 9.4 | 10.8 | -0.05 | 10.2 | 10.1 | 0.00 |
| Osteoarthritis | 40.1 | 42.2 | -0.04 | 41.5 | 41.0 | 0.01 |
| Pneumonia | 6.8 | 4.3 | 0.11 | 5.7 | 5.5 | 0.01 |
| Psoriasis | 3.1 | 3.0 | 0.00 | 3.0 | 3.0 | 0.00 |
| Renal impairment | 3.9 | 4.3 | -0.02 | 4.2 | 4.1 | 0.00 |
| Rheumatoid arthritis | 83.6 | 82.2 | 0.04 | 82.9 | 83.0 | 0.00 |
| Ulcerative colitis | 0.7 | 0.7 | 0.00 | 0.7 | 0.7 | 0.00 |
| Urinary tract infectious disease | 13.6 | 14.3 | -0.02 | 14.0 | 13.9 | 0.00 |
| Viral hepatitis C | 0.7 | 0.9 | -0.02 | 0.8 | 0.9 | -0.01 |
| Visual system disorder | 36.8 | 37.0 | 0.00 | 36.9 | 37.1 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 1.5 | 1.9 | -0.03 | 1.7 | 1.8 | 0.00 |
| Cerebrovascular disease | 3.2 | 3.1 | 0.00 | 3.1 | 3.2 | -0.01 |
| Coronary arteriosclerosis | 4.8 | 5.0 | -0.01 | 5.0 | 4.9 | 0.00 |
| Heart disease | 17.3 | 18.2 | -0.02 | 17.8 | 17.9 | 0.00 |
| Heart failure | 2.5 | 2.3 | 0.01 | 2.5 | 2.4 | 0.01 |
| Ischemic heart disease | 3.2 | 3.2 | 0.00 | 3.3 | 3.1 | 0.01 |
| Peripheral vascular disease | 1.6 | 1.7 | -0.01 | 1.6 | 1.7 | -0.01 |
| Pulmonary embolism | 0.9 | 1.0 | -0.01 | 0.9 | 1.0 | -0.01 |
| Venous thrombosis | 1.6 | 1.8 | -0.01 | 1.7 | 1.8 | 0.00 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.2 | 1.1 | 0.01 | 1.2 | 1.1 | 0.00 |
| Malignant lymphoma | 0.7 | 0.6 | 0.00 | 0.6 | 0.6 | 0.00 |
| Malignant neoplastic disease | 7.6 | 7.5 | 0.00 | 7.6 | 7.5 | 0.00 |
| Malignant tumor of colon | 0.2 | 0.2 | -0.01 | 0.2 | 0.2 | 0.00 |
| Malignant tumor of lung | 0.2 | 0.2 | 0.01 | 0.2 | 0.2 | 0.01 |
| Malignant tumor of urinary bladder | 0.2 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| Primary malignant neoplasm of prostate | 0.2 | 0.3 | -0.02 | 0.2 | 0.3 | -0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 26.6 | 27.2 | -0.01 | 27.1 | 26.9 | 0.00 |
| Antibacterials for systemic use | 50.6 | 50.3 | 0.00 | 51.1 | 51.0 | 0.00 |
| Antidepressants | 43.3 | 42.0 | 0.02 | 43.0 | 42.8 | 0.00 |
| Antiinflammatory and antirheumatic products | 51.0 | 53.1 | -0.04 | 51.9 | 52.0 | 0.00 |
| Antipsoriatics | 0.9 | 0.9 | -0.01 | 0.9 | 0.9 | 0.00 |
| Antithrombotic agents | 8.9 | 10.8 | -0.06 | 9.8 | 9.9 | 0.00 |
| Beta blocking agents | 18.1 | 18.6 | -0.01 | 18.7 | 18.4 | 0.01 |
| Calcium channel blockers | 13.8 | 14.0 | -0.01 | 14.1 | 13.9 | 0.00 |
| Diuretics | 28.0 | 28.0 | 0.00 | 28.3 | 28.3 | 0.00 |
| Drugs for acid related disorders | 40.7 | 40.1 | 0.01 | 40.5 | 40.8 | -0.01 |
| Drugs for obstructive airway diseases | 43.6 | 37.0 | 0.13 | 41.1 | 40.7 | 0.01 |
| Drugs used in diabetes | 9.8 | 10.4 | -0.02 | 10.3 | 10.2 | 0.00 |
| Immunosuppressants | 52.5 | 49.8 | 0.05 | 51.1 | 51.2 | 0.00 |
| Lipid modifying agents | 22.5 | 22.9 | -0.01 | 22.7 | 22.6 | 0.00 |
| Opioids | 40.1 | 42.0 | -0.04 | 41.4 | 41.2 | 0.00 |
| Psycholeptics | 38.6 | 37.4 | 0.02 | 38.2 | 38.1 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 7.3 | 7.1 | 0.01 | 7.3 | 7.4 | 0.00 |

### S6.2.3. CPRD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | <4.3 | 0.3 | 0.07 | 2.8 | 0.3 | 0.20 |
| 25-29 | <4.3 | 1.0 | -0.01 | 2.8 | 1.0 | 0.13 |
| 35-39 | <4.3 | 3.4 | 0.00 | 9.4 | 3.4 | 0.24 |
| 40-44 | <4.3 | 4.8 | -0.07 | 8.9 | 4.8 | 0.16 |
| 45-49 | 7.0 | 7.2 | -0.01 | 4.4 | 7.2 | -0.12 |
| 50-54 | 5.2 | 10.1 | -0.18 | 8.1 | 10.0 | -0.07 |
| 55-59 | 13.9 | 12.9 | 0.03 | 9.4 | 12.9 | -0.11 |
| 60-64 | 20.9 | 14.2 | 0.18 | 13.3 | 14.2 | -0.03 |
| 65-69 | 13.0 | 14.3 | -0.04 | 9.2 | 14.3 | -0.16 |
| 70-74 | 14.8 | 12.2 | 0.08 | 13.3 | 12.2 | 0.03 |
| 75-79 | 8.7 | 9.6 | -0.03 | 5.3 | 9.6 | -0.17 |
| 80-84 | 6.1 | 5.6 | 0.02 | 10.3 | 5.6 | 0.17 |
| 85-89 | <4.3 | 1.9 | -0.09 | <1.9 | 1.9 | -0.16 |
| 90-94 | <4.3 | 0.6 | 0.03 | 2.5 | 0.6 | 0.15 |
| Gender: female | 78.3 | 73.4 | 0.11 | 73.9 | 73.4 | 0.01 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 30.4 | 20.9 | 0.22 | 29.2 | 21.1 | 0.19 |
| Chronic obstructive lung disease | 13.0 | 3.7 | 0.34 | 6.7 | 3.8 | 0.13 |
| Depressive disorder | <4.3 | 2.5 | 0.06 | <1.9 | 2.5 | -0.10 |
| Diabetes mellitus | 4.3 | 2.3 | 0.11 | 3.6 | 2.3 | 0.08 |
| Gastroesophageal reflux disease | <4.3 | 0.7 | 0.02 | <1.9 | 0.7 | -0.06 |
| Gastrointestinal hemorrhage | <4.3 | 1.6 | -0.07 | <1.9 | 1.6 | -0.14 |
| Hyperlipidemia | <4.3 | 0.9 | -0.01 | <1.9 | 0.9 | -0.08 |
| Hypertensive disorder | <4.3 | 2.7 | -0.01 | <1.9 | 2.7 | -0.14 |
| Lesion of liver | <4.3 | 0.1 | 0.11 | <1.9 | <0.1 | 0.04 |
| Obesity | <4.3 | 0.3 | 0.07 | <1.9 | 0.3 | -0.01 |
| Osteoarthritis | 6.1 | 4.4 | 0.07 | 8.1 | 4.5 | 0.15 |
| Pneumonia | <4.3 | 1.4 | 0.09 | <1.9 | 1.4 | -0.05 |
| Renal impairment | <4.3 | 3.5 | -0.18 | 2.5 | 3.5 | -0.06 |
| Rheumatoid arthritis | 45.2 | 36.8 | 0.17 | 36.4 | 36.9 | -0.01 |
| Urinary tract infectious disease | <4.3 | 5.2 | -0.25 | <1.9 | 5.2 | -0.30 |
| Visual system disorder | 7.0 | 8.3 | -0.05 | 9.4 | 8.3 | 0.04 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | <4.3 | 1.1 | 0.12 | <1.9 | 1.1 | -0.03 |
| Heart disease | <4.3 | 3.8 | -0.02 | <1.9 | 3.8 | -0.18 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | <4.3 | <0.1 | 0.12 | <1.9 | <0.1 | 0.05 |
| Malignant lymphoma | <4.3 | <0.1 | 0.12 | <1.9 | <0.1 | 0.05 |
| Malignant neoplastic disease | <4.3 | 1.8 | 0.11 | 3.3 | 1.8 | 0.10 |
| Malignant tumor of breast | <4.3 | 0.1 | 0.10 | 2.5 | 0.1 | 0.20 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 28.7 | 26.5 | 0.05 | 22.2 | 26.5 | -0.10 |
| Antibacterials for systemic use | 73.9 | 44.5 | 0.63 | 49.2 | 45.0 | 0.08 |
| Antidepressants | 38.3 | 31.8 | 0.14 | 29.7 | 31.9 | -0.05 |
| Antiepileptics | 15.7 | 8.7 | 0.21 | 5.0 | 8.8 | -0.15 |
| Antiinflammatory and antirheumatic products | 53.0 | 52.1 | 0.02 | 50.3 | 52.2 | -0.04 |
| Antineoplastic agents | 37.4 | 52.7 | -0.31 | 45.3 | 52.5 | -0.14 |
| Antipsoriatics | <4.3 | 0.9 | -0.01 | 2.5 | 0.9 | 0.12 |
| Antithrombotic agents | 27.0 | 23.8 | 0.07 | 15.8 | 23.9 | -0.20 |
| Beta blocking agents | 10.4 | 16.7 | -0.18 | 7.8 | 16.7 | -0.27 |
| Calcium channel blockers | 18.3 | 18.8 | -0.02 | 11.9 | 18.8 | -0.19 |
| Diuretics | 18.3 | 23.3 | -0.12 | 15.0 | 23.3 | -0.21 |
| Drugs for acid related disorders | 74.8 | 63.9 | 0.24 | 64.7 | 64.1 | 0.01 |
| Drugs for obstructive airway diseases | 69.6 | 32.3 | 0.80 | 29.2 | 33.0 | -0.08 |
| Drugs used in diabetes | 10.4 | 8.8 | 0.06 | 10.3 | 8.8 | 0.05 |
| Immunosuppressants | 47.0 | 58.1 | -0.22 | 50.6 | 57.9 | -0.15 |
| Lipid modifying agents | 32.2 | 28.3 | 0.08 | 16.9 | 28.4 | -0.27 |
| Opioids | 46.1 | 39.2 | 0.14 | 45.3 | 39.3 | 0.12 |
| Psycholeptics | 20.9 | 19.9 | 0.02 | 15.6 | 19.9 | -0.11 |

### S6.2.4. DAGermany

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | <5.6 | <2.5 | 0.02 | <5.6 | <2.5 | 0.02 |
| 30-34 | <5.6 | 4.0 | -0.10 | <5.6 | 4.0 | -0.10 |
| 35-39 | 6.7 | 4.5 | 0.10 | 6.7 | 4.5 | 0.10 |
| 40-44 | 12.4 | 4.0 | 0.31 | 12.4 | 4.0 | 0.31 |
| 45-49 | 7.9 | 9.4 | -0.06 | 7.9 | 9.4 | -0.06 |
| 50-54 | 13.5 | 9.4 | 0.13 | 13.5 | 9.4 | 0.13 |
| 55-59 | 16.9 | 13.4 | 0.10 | 16.9 | 13.4 | 0.10 |
| 60-64 | 12.4 | 10.9 | 0.05 | 12.4 | 10.9 | 0.05 |
| 65-69 | 10.1 | 12.4 | -0.07 | 10.1 | 12.4 | -0.07 |
| 70-74 | 7.9 | 9.4 | -0.06 | 7.9 | 9.4 | -0.06 |
| 75-79 | 5.6 | 6.9 | -0.05 | 5.6 | 6.9 | -0.05 |
| 80-84 | <5.6 | 6.9 | -0.22 | <5.6 | 6.9 | -0.22 |
| Gender: female | 89.9 | 79.2 | 0.30 | 89.9 | 79.2 | 0.30 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 61.8 | 55.4 | 0.13 | 61.8 | 55.4 | 0.13 |
| Chronic liver disease | <5.6 | <2.5 | -0.07 | <5.6 | <2.5 | -0.07 |
| Chronic obstructive lung disease | 6.7 | 11.4 | -0.16 | 6.7 | 11.4 | -0.16 |
| Depressive disorder | 14.6 | 10.4 | 0.13 | 14.6 | 10.4 | 0.13 |
| Diabetes mellitus | 5.6 | 13.4 | -0.27 | 5.6 | 13.4 | -0.27 |
| Hyperlipidemia | 9.0 | 13.4 | -0.14 | 9.0 | 13.4 | -0.14 |
| Hypertensive disorder | 28.1 | 40.1 | -0.26 | 28.1 | 40.1 | -0.25 |
| Obesity | <5.6 | 5.0 | -0.02 | <5.6 | 5.0 | -0.02 |
| Osteoarthritis | 11.2 | 13.4 | -0.06 | 11.2 | 13.4 | -0.06 |
| Pneumonia | <5.6 | 6.9 | -0.22 | <5.6 | 6.9 | -0.22 |
| Psoriasis | <5.6 | <2.5 | 0.15 | <5.6 | <2.5 | 0.15 |
| Renal impairment | <5.6 | 4.5 | -0.06 | <5.6 | 4.5 | -0.06 |
| Rheumatoid arthritis | 56.2 | 57.9 | -0.04 | 56.2 | 57.9 | -0.04 |
| Urinary tract infectious disease | 5.6 | 9.9 | -0.16 | 5.6 | 9.9 | -0.16 |
| Visual system disorder | 11.2 | 16.8 | -0.16 | 11.2 | 16.8 | -0.16 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Cerebrovascular disease | <5.6 | <2.5 | 0.14 | <5.6 | <2.5 | 0.14 |
| Coronary arteriosclerosis | <5.6 | <2.5 | 0.06 | <5.6 | <2.5 | 0.06 |
| Heart disease | 11.2 | 21.8 | -0.29 | 11.2 | 21.8 | -0.29 |
| Heart failure | <5.6 | 6.9 | -0.30 | <5.6 | 6.9 | -0.30 |
| Ischemic heart disease | <5.6 | 7.9 | -0.14 | <5.6 | 7.9 | -0.14 |
| Peripheral vascular disease | <5.6 | 2.5 | -0.10 | <5.6 | 2.5 | -0.10 |
| Venous thrombosis | <5.6 | 5.9 | -0.12 | <5.6 | 5.9 | -0.12 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Malignant neoplastic disease | <5.6 | 6.4 | -0.08 | <5.6 | 6.4 | -0.08 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 29.2 | 39.6 | -0.22 | 29.2 | 39.6 | -0.22 |
| Antibacterials for systemic use | 29.2 | 37.6 | -0.18 | 29.2 | 37.6 | -0.18 |
| Antidepressants | 16.9 | 18.8 | -0.05 | 16.9 | 18.8 | -0.05 |
| Antiepileptics | <5.6 | 7.9 | -0.14 | <5.6 | 7.9 | -0.14 |
| Antiinflammatory and antirheumatic products | 43.8 | 46.5 | -0.06 | 43.8 | 46.5 | -0.05 |
| Antineoplastic agents | 29.2 | 27.2 | 0.04 | 29.2 | 27.2 | 0.04 |
| Antithrombotic agents | 13.5 | 26.2 | -0.32 | 13.5 | 26.2 | -0.32 |
| Beta blocking agents | 25.8 | 35.6 | -0.21 | 25.8 | 35.6 | -0.21 |
| Calcium channel blockers | 16.9 | 18.3 | -0.04 | 16.9 | 18.3 | -0.04 |
| Diuretics | 19.1 | 39.1 | -0.45 | 19.1 | 39.1 | -0.45 |
| Drugs for acid related disorders | 65.2 | 69.8 | -0.10 | 65.2 | 69.8 | -0.10 |
| Drugs for obstructive airway diseases | 19.1 | 21.8 | -0.07 | 19.1 | 21.8 | -0.07 |
| Drugs used in diabetes | 6.7 | 12.9 | -0.21 | 6.7 | 12.9 | -0.21 |
| Immunosuppressants | 37.1 | 32.7 | 0.09 | 37.1 | 32.7 | 0.09 |
| Lipid modifying agents | 5.6 | 17.8 | -0.39 | 5.6 | 17.8 | -0.38 |
| Opioids | 20.2 | 27.2 | -0.16 | 20.2 | 27.2 | -0.16 |
| Psycholeptics | 16.9 | 10.4 | 0.19 | 16.9 | 10.4 | 0.19 |

### S6.2.5. IMRD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 25-29 | <4.5 | 0.9 | 0.13 | 3.6 | 0.9 | 0.18 |
| 30-34 | <4.5 | 1.7 | -0.07 | 6.7 | 1.7 | 0.25 |
| 35-39 | 4.5 | 3.1 | 0.07 | 10.0 | 3.1 | 0.28 |
| 40-44 | <4.5 | 4.3 | -0.09 | 3.3 | 4.3 | -0.05 |
| 45-49 | 5.4 | 7.3 | -0.08 | 4.0 | 7.2 | -0.14 |
| 50-54 | <4.5 | 10.1 | -0.26 | 3.8 | 10.1 | -0.25 |
| 55-59 | 9.8 | 12.4 | -0.08 | 2.6 | 12.4 | -0.38 |
| 60-64 | 17.9 | 14.6 | 0.09 | 16.6 | 14.5 | 0.06 |
| 65-69 | 13.4 | 14.6 | -0.04 | 19.7 | 14.7 | 0.13 |
| 70-74 | 19.6 | 12.7 | 0.19 | 14.2 | 12.7 | 0.04 |
| 75-79 | 9.8 | 9.5 | 0.01 | 6.9 | 9.5 | -0.10 |
| 80-84 | 8.0 | 5.7 | 0.09 | 8.3 | 5.7 | 0.10 |
| 85-89 | <4.5 | 2.0 | -0.10 | <1.6 | 2.1 | -0.17 |
| 90-94 | <4.5 | 0.5 | 0.04 | <1.6 | 0.5 | -0.05 |
| Gender: female | 78.6 | 73.8 | 0.11 | 74.1 | 73.8 | 0.01 |
| Race |  |  |  |  |  |  |
| race = White | 30.4 | 30.8 | -0.01 | 48.2 | 30.7 | 0.36 |
| race = Asian Indian | <4.5 | 0.6 | 0.03 | 2.9 | 0.6 | 0.17 |
| race = Pakistani | <4.5 | 0.4 | 0.07 | 1.7 | 0.4 | 0.13 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 29.5 | 20.8 | 0.20 | 20.6 | 20.9 | -0.01 |
| Chronic obstructive lung disease | 17.0 | 3.7 | 0.45 | 5.9 | 3.9 | 0.09 |
| Depressive disorder | 4.5 | 2.5 | 0.11 | 2.6 | 2.5 | 0.00 |
| Diabetes mellitus | 8.0 | 2.1 | 0.27 | 8.3 | 2.1 | 0.28 |
| Gastroesophageal reflux disease | <4.5 | 0.6 | 0.03 | <1.6 | 0.6 | -0.06 |
| Gastrointestinal hemorrhage | <4.5 | 1.4 | -0.05 | <1.6 | 1.4 | -0.13 |
| Hyperlipidemia | <4.5 | 1.0 | -0.01 | <1.6 | 1.0 | -0.10 |
| Hypertensive disorder | <4.5 | 2.6 | 0.00 | <1.6 | 2.6 | -0.15 |
| Obesity | <4.5 | 0.4 | 0.14 | 3.1 | 0.4 | 0.21 |
| Osteoarthritis | <4.5 | 4.6 | -0.05 | 7.4 | 4.6 | 0.12 |
| Pneumonia | <4.5 | 1.1 | 0.17 | <1.6 | 1.1 | -0.02 |
| Renal impairment | <4.5 | 3.1 | -0.03 | <1.6 | 3.2 | -0.18 |
| Rheumatoid arthritis | 33.9 | 37.3 | -0.07 | 42.0 | 37.4 | 0.09 |
| Urinary tract infectious disease | <4.5 | 4.5 | -0.16 | 5.2 | 4.6 | 0.03 |
| Visual system disorder | 9.8 | 8.3 | 0.05 | 10.2 | 8.3 | 0.06 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | <4.5 | 1.1 | -0.02 | <1.6 | 1.1 | -0.11 |
| Cerebrovascular disease | <4.5 | 0.6 | 0.11 | <1.6 | 0.6 | -0.02 |
| Heart disease | <4.5 | 3.8 | -0.12 | <1.6 | 3.8 | -0.23 |
| Venous thrombosis | <4.5 | 0.8 | 0.01 | 6.7 | 0.8 | 0.31 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Malignant lymphoma | <4.5 | 0.1 | 0.11 | <1.6 | 0.1 | 0.03 |
| Malignant neoplastic disease | <4.5 | 1.9 | 0.06 | 5.5 | 1.9 | 0.19 |
| Malignant tumor of breast | <4.5 | 0.2 | 0.09 | 5.0 | 0.2 | 0.30 |
| Medication use |  |  |  |  |  |  |
| Antibacterials for systemic use | 9.8 | 4.6 | 0.20 | 2.6 | 4.6 | -0.11 |
| Antidepressants | <4.5 | 1.1 | 0.16 | <1.6 | 1.1 | -0.02 |
| Antiinflammatory and antirheumatic products | <4.5 | 1.2 | -0.03 | <1.6 | 1.2 | -0.11 |
| Antineoplastic agents | <4.5 | 1.6 | -0.06 | <1.6 | 1.6 | -0.14 |
| Antithrombotic agents | <4.5 | 1.4 | 0.10 | 3.3 | 1.4 | 0.13 |
| Beta blocking agents | <4.5 | 0.5 | 0.05 | <1.6 | 0.5 | -0.04 |
| Diuretics | <4.5 | 1.0 | -0.01 | <1.6 | 1.0 | -0.10 |
| Drugs for acid related disorders | <4.5 | 1.8 | -0.08 | <1.6 | 1.8 | -0.16 |
| Drugs for obstructive airway diseases | <4.5 | 0.7 | 0.02 | <1.6 | 0.7 | -0.07 |
| Immunosuppressants | <4.5 | 1.8 | -0.08 | <1.6 | 1.8 | -0.16 |
| Lipid modifying agents | <4.5 | 1.3 | 0.10 | 3.3 | 1.3 | 0.13 |

### S6.2.6. MDCD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 1.3 | 1.5 | -0.02 | 1.2 | 1.5 | -0.02 |
| 20-24 | 2.4 | 2.3 | 0.01 | 2.7 | 2.3 | 0.03 |
| 25-29 | 4.5 | 4.9 | -0.02 | 5.1 | 4.5 | 0.03 |
| 30-34 | 6.1 | 7.4 | -0.05 | 6.9 | 7.0 | -0.01 |
| 35-39 | 9.1 | 10.2 | -0.04 | 9.0 | 9.5 | -0.02 |
| 40-44 | 10.5 | 11.1 | -0.02 | 10.8 | 10.7 | 0.00 |
| 45-49 | 13.1 | 13.6 | -0.02 | 12.8 | 13.7 | -0.03 |
| 50-54 | 16.5 | 15.3 | 0.03 | 16.3 | 16.0 | 0.01 |
| 55-59 | 15.6 | 15.8 | -0.01 | 15.5 | 16.2 | -0.02 |
| 60-64 | 12.3 | 10.8 | 0.05 | 11.8 | 11.0 | 0.02 |
| 65-69 | 4.3 | 3.2 | 0.06 | 4.1 | 3.5 | 0.03 |
| 70-74 | 2.2 | 1.7 | 0.04 | 2.0 | 1.8 | 0.02 |
| 85-89 | 0.3 | 0.4 | 0.00 | 0.3 | 0.4 | -0.02 |
| Gender: female | 89.1 | 89.7 | -0.02 | 89.3 | 89.9 | -0.02 |
| Race |  |  |  |  |  |  |
| race = Black or African American | 27.4 | 29.9 | -0.06 | 27.5 | 28.0 | -0.01 |
| race = White | 57.3 | 54.2 | 0.06 | 56.9 | 56.3 | 0.01 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 69.7 | 54.0 | 0.33 | 61.4 | 63.4 | -0.04 |
| Attention deficit hyperactivity disorder | 2.6 | 2.6 | 0.00 | 2.7 | 2.7 | 0.00 |
| Chronic liver disease | 6.5 | 6.8 | -0.01 | 6.8 | 6.8 | 0.00 |
| Chronic obstructive lung disease | 28.0 | 20.4 | 0.18 | 22.3 | 25.6 | -0.08 |
| Crohn's disease | 1.1 | 0.7 | 0.04 | 1.1 | 0.7 | 0.04 |
| Dementia | 1.2 | 1.5 | -0.03 | 1.2 | 1.6 | -0.03 |
| Depressive disorder | 39.9 | 41.4 | -0.03 | 40.9 | 41.1 | 0.00 |
| Diabetes mellitus | 26.6 | 25.6 | 0.02 | 26.3 | 26.1 | 0.00 |
| Gastroesophageal reflux disease | 35.4 | 33.9 | 0.03 | 34.5 | 34.6 | 0.00 |
| Gastrointestinal hemorrhage | 5.0 | 5.8 | -0.04 | 5.1 | 5.8 | -0.03 |
| Human immunodeficiency virus infection | 0.3 | 0.7 | -0.06 | 0.5 | 0.6 | -0.02 |
| Hyperlipidemia | 38.8 | 35.6 | 0.07 | 37.9 | 37.0 | 0.02 |
| Hypertensive disorder | 59.2 | 58.0 | 0.03 | 59.0 | 59.4 | -0.01 |
| Lesion of liver | 1.3 | 1.7 | -0.03 | 1.5 | 1.9 | -0.03 |
| Obesity | 23.3 | 24.8 | -0.04 | 23.6 | 24.0 | -0.01 |
| Osteoarthritis | 55.2 | 55.1 | 0.00 | 54.6 | 55.7 | -0.02 |
| Pneumonia | 15.9 | 9.1 | 0.21 | 12.1 | 12.4 | -0.01 |
| Psoriasis | 2.1 | 1.9 | 0.01 | 2.2 | 2.1 | 0.00 |
| Renal impairment | 11.6 | 12.0 | -0.01 | 10.8 | 12.0 | -0.04 |
| Rheumatoid arthritis | 81.8 | 83.1 | -0.03 | 82.4 | 83.2 | -0.02 |
| Schizophrenia | 1.6 | 1.7 | -0.01 | 1.7 | 1.7 | 0.00 |
| Ulcerative colitis | 0.5 | 0.6 | -0.01 | 0.7 | 0.6 | 0.01 |
| Urinary tract infectious disease | 20.6 | 22.1 | -0.04 | 21.3 | 21.2 | 0.00 |
| Viral hepatitis C | 4.8 | 5.5 | -0.03 | 5.5 | 5.6 | 0.00 |
| Visual system disorder | 50.0 | 50.4 | -0.01 | 50.1 | 51.1 | -0.02 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 3.1 | 2.8 | 0.02 | 2.8 | 3.0 | -0.01 |
| Cerebrovascular disease | 5.9 | 5.8 | 0.00 | 6.2 | 6.1 | 0.00 |
| Coronary arteriosclerosis | 11.3 | 9.0 | 0.08 | 9.8 | 10.0 | 0.00 |
| Heart disease | 35.0 | 31.0 | 0.09 | 32.2 | 33.2 | -0.02 |
| Heart failure | 10.9 | 9.2 | 0.06 | 9.4 | 10.5 | -0.04 |
| Ischemic heart disease | 9.4 | 6.9 | 0.09 | 8.4 | 7.5 | 0.04 |
| Peripheral vascular disease | 4.6 | 5.2 | -0.03 | 4.3 | 5.2 | -0.04 |
| Pulmonary embolism | 2.6 | 2.8 | -0.01 | 2.4 | 2.9 | -0.04 |
| Venous thrombosis | 3.5 | 3.9 | -0.02 | 3.6 | 4.0 | -0.02 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.4 | 1.5 | 0.00 | 1.5 | 1.5 | -0.01 |
| Malignant lymphoma | 0.5 | 0.5 | 0.01 | 0.6 | 0.4 | 0.03 |
| Malignant neoplasm of anorectum | <0.1 | 0.2 | -0.03 | 0.1 | 0.2 | -0.02 |
| Malignant neoplastic disease | 7.2 | 7.0 | 0.01 | 7.1 | 6.9 | 0.01 |
| Malignant tumor of lung | 0.5 | 0.6 | -0.01 | 0.4 | 0.6 | -0.03 |
| Malignant tumor of urinary bladder | <0.1 | <0.1 | 0.02 | <0.1 | <0.1 | 0.02 |
| Primary malignant neoplasm of prostate | <0.1 | 0.2 | -0.02 | <0.1 | 0.1 | -0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 36.3 | 34.4 | 0.04 | 35.0 | 35.0 | 0.00 |
| Antibacterials for systemic use | 60.5 | 59.7 | 0.02 | 60.1 | 59.8 | 0.00 |
| Antidepressants | 62.3 | 61.3 | 0.02 | 62.3 | 62.4 | 0.00 |
| Antiepileptics | 51.0 | 49.8 | 0.02 | 51.1 | 50.2 | 0.02 |
| Antiinflammatory and antirheumatic products | 56.8 | 59.4 | -0.05 | 59.3 | 58.0 | 0.03 |
| Antineoplastic agents | 36.9 | 34.2 | 0.06 | 36.0 | 35.6 | 0.01 |
| Antipsoriatics | 0.7 | 1.0 | -0.03 | 0.6 | 1.1 | -0.05 |
| Antithrombotic agents | 22.8 | 22.6 | 0.00 | 22.1 | 22.9 | -0.02 |
| Beta blocking agents | 28.6 | 27.3 | 0.03 | 27.7 | 28.3 | -0.01 |
| Calcium channel blockers | 23.4 | 22.0 | 0.03 | 22.3 | 22.7 | -0.01 |
| Diuretics | 40.4 | 37.6 | 0.06 | 39.1 | 39.2 | 0.00 |
| Drugs for acid related disorders | 61.7 | 59.8 | 0.04 | 60.3 | 61.6 | -0.03 |
| Drugs for obstructive airway diseases | 65.5 | 53.5 | 0.25 | 59.0 | 60.3 | -0.03 |
| Drugs used in diabetes | 19.8 | 18.8 | 0.02 | 19.5 | 18.9 | 0.02 |
| Immunosuppressants | 53.1 | 49.4 | 0.07 | 51.5 | 51.8 | 0.00 |
| Lipid modifying agents | 32.0 | 30.2 | 0.04 | 31.0 | 31.3 | -0.01 |
| Opioids | 66.6 | 68.3 | -0.04 | 67.6 | 68.7 | -0.02 |
| Psycholeptics | 58.0 | 56.7 | 0.03 | 57.4 | 57.6 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 8.3 | 7.7 | 0.02 | 8.2 | 7.7 | 0.02 |

### S6.2.7. MDCR

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 45-49 | 0.1 | 0.1 | 0.02 | 0.1 | 0.1 | 0.02 |
| 55-59 | 1.0 | 1.1 | 0.00 | 1.0 | 1.2 | -0.02 |
| 60-64 | 2.1 | 2.2 | -0.01 | 2.2 | 2.3 | -0.01 |
| 65-69 | 29.2 | 28.1 | 0.03 | 29.0 | 28.7 | 0.01 |
| 70-74 | 27.7 | 28.2 | -0.01 | 27.8 | 28.0 | 0.00 |
| 75-79 | 19.6 | 20.2 | -0.01 | 19.8 | 20.0 | 0.00 |
| 80-84 | 12.3 | 13.0 | -0.02 | 12.4 | 12.6 | -0.01 |
| 85-89 | 5.8 | 5.3 | 0.02 | 5.7 | 5.3 | 0.02 |
| 90-94 | 1.4 | 1.4 | 0.00 | 1.4 | 1.3 | 0.01 |
| 95-99 | 0.1 | 0.2 | -0.01 | 0.1 | 0.2 | -0.02 |
| Gender: female | 78.1 | 74.0 | 0.10 | 75.7 | 75.7 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 53.3 | 34.2 | 0.39 | 42.5 | 44.4 | -0.04 |
| Attention deficit hyperactivity disorder | 0.1 | 0.2 | -0.01 | 0.1 | 0.2 | -0.01 |
| Chronic liver disease | 1.7 | 2.0 | -0.03 | 1.7 | 2.1 | -0.03 |
| Chronic obstructive lung disease | 20.3 | 14.7 | 0.15 | 16.7 | 18.1 | -0.04 |
| Crohn's disease | 0.6 | 0.5 | 0.02 | 0.7 | 0.5 | 0.03 |
| Dementia | 2.1 | 2.3 | -0.02 | 2.2 | 2.3 | 0.00 |
| Depressive disorder | 10.4 | 11.0 | -0.02 | 10.3 | 11.0 | -0.02 |
| Diabetes mellitus | 20.7 | 20.7 | 0.00 | 20.6 | 20.4 | 0.00 |
| Gastroesophageal reflux disease | 19.4 | 18.8 | 0.02 | 19.2 | 19.7 | -0.01 |
| Gastrointestinal hemorrhage | 4.4 | 5.1 | -0.03 | 4.6 | 5.0 | -0.02 |
| Human immunodeficiency virus infection | <0.1 | 0.1 | -0.02 | <0.1 | 0.1 | -0.02 |
| Hyperlipidemia | 39.1 | 40.0 | -0.02 | 39.8 | 39.7 | 0.00 |
| Hypertensive disorder | 62.2 | 61.6 | 0.01 | 61.9 | 61.4 | 0.01 |
| Lesion of liver | 0.9 | 1.1 | -0.02 | 0.9 | 1.1 | -0.02 |
| Obesity | 5.5 | 6.3 | -0.04 | 5.8 | 6.2 | -0.02 |
| Osteoarthritis | 53.3 | 57.7 | -0.09 | 56.1 | 55.5 | 0.01 |
| Pneumonia | 14.3 | 9.2 | 0.16 | 11.6 | 12.0 | -0.01 |
| Psoriasis | 2.0 | 2.4 | -0.03 | 2.2 | 2.4 | -0.02 |
| Renal impairment | 12.6 | 12.5 | 0.00 | 12.7 | 12.5 | 0.01 |
| Rheumatoid arthritis | 87.0 | 86.5 | 0.02 | 86.7 | 86.6 | 0.00 |
| Schizophrenia | <0.1 | 0.1 | -0.01 | <0.1 | 0.1 | -0.01 |
| Ulcerative colitis | 0.7 | 0.7 | -0.01 | 0.6 | 0.7 | -0.01 |
| Urinary tract infectious disease | 15.2 | 17.1 | -0.05 | 15.6 | 16.1 | -0.01 |
| Viral hepatitis C | 0.4 | 0.5 | -0.02 | 0.4 | 0.5 | -0.01 |
| Visual system disorder | 61.5 | 61.0 | 0.01 | 61.3 | 60.8 | 0.01 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 9.6 | 11.3 | -0.06 | 10.3 | 10.6 | -0.01 |
| Cerebrovascular disease | 12.0 | 11.3 | 0.02 | 11.8 | 11.3 | 0.02 |
| Coronary arteriosclerosis | 19.8 | 20.3 | -0.01 | 20.7 | 20.5 | 0.01 |
| Heart disease | 44.9 | 46.4 | -0.03 | 45.7 | 46.0 | -0.01 |
| Heart failure | 11.9 | 10.5 | 0.04 | 11.4 | 11.2 | 0.01 |
| Ischemic heart disease | 10.5 | 10.0 | 0.02 | 10.7 | 10.2 | 0.02 |
| Peripheral vascular disease | 6.3 | 6.4 | 0.00 | 6.5 | 6.0 | 0.02 |
| Pulmonary embolism | 1.4 | 1.4 | 0.01 | 1.5 | 1.3 | 0.02 |
| Venous thrombosis | 3.2 | 3.8 | -0.04 | 3.5 | 3.7 | -0.02 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 2.0 | 2.3 | -0.02 | 2.1 | 2.2 | -0.01 |
| Malignant lymphoma | 1.5 | 1.4 | 0.01 | 1.6 | 1.4 | 0.02 |
| Malignant neoplasm of anorectum | 0.3 | 0.4 | -0.02 | 0.3 | 0.4 | -0.02 |
| Malignant neoplastic disease | 18.8 | 19.7 | -0.02 | 19.4 | 19.1 | 0.01 |
| Malignant tumor of breast | 4.1 | 3.9 | 0.01 | 4.3 | 3.9 | 0.02 |
| Malignant tumor of colon | 0.6 | 0.8 | -0.02 | 0.7 | 0.8 | -0.01 |
| Malignant tumor of lung | 0.8 | 0.9 | -0.01 | 0.8 | 1.0 | -0.03 |
| Malignant tumor of urinary bladder | 0.9 | 0.9 | 0.00 | 0.9 | 0.9 | 0.00 |
| Primary malignant neoplasm of prostate | 1.9 | 2.4 | -0.03 | 2.2 | 2.1 | 0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 48.0 | 47.7 | 0.00 | 47.7 | 48.3 | -0.01 |
| Antibacterials for systemic use | 53.1 | 51.8 | 0.03 | 52.4 | 52.7 | -0.01 |
| Antidepressants | 36.6 | 35.7 | 0.02 | 36.2 | 37.1 | -0.02 |
| Antiepileptics | 23.7 | 23.4 | 0.01 | 23.9 | 23.7 | 0.01 |
| Antiinflammatory and antirheumatic products | 37.0 | 41.3 | -0.09 | 40.3 | 39.5 | 0.02 |
| Antineoplastic agents | 37.1 | 36.1 | 0.02 | 36.5 | 37.2 | -0.02 |
| Antipsoriatics | 1.3 | 1.2 | 0.01 | 1.3 | 1.3 | 0.00 |
| Antithrombotic agents | 23.3 | 26.2 | -0.07 | 24.7 | 24.6 | 0.00 |
| Beta blocking agents | 40.3 | 41.7 | -0.03 | 41.4 | 41.0 | 0.01 |
| Calcium channel blockers | 30.5 | 29.5 | 0.02 | 30.2 | 29.9 | 0.01 |
| Diuretics | 48.1 | 47.5 | 0.01 | 47.6 | 48.4 | -0.02 |
| Drugs for acid related disorders | 52.0 | 49.7 | 0.05 | 51.2 | 51.6 | -0.01 |
| Drugs for obstructive airway diseases | 49.3 | 36.0 | 0.27 | 41.8 | 43.0 | -0.02 |
| Drugs used in diabetes | 15.5 | 15.1 | 0.01 | 15.5 | 15.1 | 0.01 |
| Immunosuppressants | 49.6 | 47.6 | 0.04 | 48.5 | 49.3 | -0.02 |
| Lipid modifying agents | 47.4 | 47.6 | 0.00 | 48.0 | 47.9 | 0.00 |
| Opioids | 41.9 | 44.9 | -0.06 | 42.9 | 43.2 | 0.00 |
| Psycholeptics | 38.7 | 37.1 | 0.03 | 37.9 | 38.2 | -0.01 |
| Psychostimulants, agents used for adhd and nootropics | 2.3 | 2.6 | -0.02 | 2.4 | 2.7 | -0.02 |

### S6.2.8. OpenClaims

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.3 | 0.3 | 0.00 | 0.3 | 0.3 | 0.00 |
| 20-24 | 1.0 | 1.0 | 0.00 | 1.0 | 1.0 | 0.00 |
| 25-29 | 1.8 | 1.7 | 0.00 | 1.8 | 1.8 | 0.00 |
| 30-34 | 3.0 | 2.9 | 0.01 | 3.0 | 2.9 | 0.00 |
| 40-44 | 6.1 | 5.7 | 0.02 | 6.0 | 5.9 | 0.00 |
| 50-54 | 11.7 | 11.1 | 0.02 | 11.5 | 11.5 | 0.00 |
| 55-59 | 14.0 | 13.9 | 0.00 | 14.0 | 14.0 | 0.00 |
| 60-64 | 13.8 | 14.1 | -0.01 | 13.9 | 14.1 | 0.00 |
| 65-69 | 12.4 | 13.0 | -0.02 | 12.7 | 12.7 | 0.00 |
| 80-84 | 4.0 | 4.6 | -0.03 | 4.3 | 4.2 | 0.00 |
| 85-89 | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.01 |
| Gender: female | 84.7 | 82.1 | 0.07 | 83.5 | 83.5 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 36.6 | 27.3 | 0.20 | 33.1 | 31.5 | 0.03 |
| Attention deficit hyperactivity disorder | 0.9 | 0.8 | 0.00 | 0.9 | 0.8 | 0.00 |
| Chronic liver disease | 2.1 | 2.2 | -0.01 | 2.2 | 2.2 | 0.00 |
| Chronic obstructive lung disease | 10.6 | 8.0 | 0.09 | 9.4 | 9.3 | 0.00 |
| Crohn's disease | 0.5 | 0.5 | 0.00 | 0.5 | 0.5 | 0.00 |
| Dementia | 0.9 | 1.0 | -0.01 | 0.9 | 0.9 | 0.00 |
| Depressive disorder | 11.3 | 11.6 | -0.01 | 11.7 | 11.5 | 0.01 |
| Diabetes mellitus | 16.5 | 16.9 | -0.01 | 16.8 | 16.7 | 0.00 |
| Gastroesophageal reflux disease | 5.5 | 6.4 | -0.04 | 6.0 | 5.9 | 0.00 |
| Gastrointestinal hemorrhage | 2.5 | 2.7 | -0.01 | 2.6 | 2.6 | 0.00 |
| Hyperlipidemia | 26.6 | 27.3 | -0.02 | 27.1 | 26.8 | 0.01 |
| Hypertensive disorder | 37.0 | 38.1 | -0.02 | 37.9 | 37.4 | 0.01 |
| Lesion of liver | 0.8 | 0.9 | -0.01 | 0.9 | 0.9 | 0.00 |
| Obesity | 7.6 | 7.8 | -0.01 | 7.8 | 7.7 | 0.00 |
| Osteoarthritis | 35.5 | 38.0 | -0.05 | 37.0 | 36.6 | 0.01 |
| Pneumonia | 7.1 | 4.8 | 0.10 | 6.1 | 5.8 | 0.01 |
| Psoriasis | 1.9 | 1.9 | 0.00 | 2.0 | 1.9 | 0.00 |
| Renal impairment | 7.2 | 7.7 | -0.02 | 7.5 | 7.5 | 0.00 |
| Rheumatoid arthritis | 68.4 | 67.8 | 0.01 | 68.1 | 68.0 | 0.00 |
| Schizophrenia | 0.2 | 0.2 | 0.01 | 0.2 | 0.2 | 0.01 |
| Ulcerative colitis | 0.5 | 0.5 | 0.00 | 0.5 | 0.5 | 0.00 |
| Urinary tract infectious disease | 10.0 | 11.0 | -0.03 | 10.6 | 10.5 | 0.00 |
| Viral hepatitis C | 1.0 | 1.1 | -0.01 | 1.0 | 1.0 | 0.00 |
| Visual system disorder | 26.7 | 27.3 | -0.01 | 27.1 | 27.0 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 3.5 | 4.4 | -0.05 | 4.0 | 4.0 | 0.00 |
| Cerebrovascular disease | 3.5 | 3.5 | 0.00 | 3.6 | 3.5 | 0.00 |
| Coronary arteriosclerosis | 7.3 | 7.7 | -0.02 | 7.7 | 7.6 | 0.00 |
| Heart disease | 19.8 | 20.8 | -0.02 | 20.4 | 20.3 | 0.00 |
| Ischemic heart disease | 3.9 | 3.9 | 0.00 | 4.0 | 3.9 | 0.00 |
| Peripheral vascular disease | 10.4 | 11.2 | -0.03 | 11.0 | 10.8 | 0.00 |
| Pulmonary embolism | 0.9 | 1.0 | -0.01 | 1.0 | 1.0 | 0.00 |
| Venous thrombosis | 1.6 | 1.8 | -0.01 | 1.7 | 1.7 | 0.00 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.0 | 1.1 | -0.01 | 1.1 | 1.1 | 0.00 |
| Malignant lymphoma | 0.7 | 0.7 | 0.00 | 0.7 | 0.7 | 0.00 |
| Malignant neoplasm of anorectum | 0.1 | 0.1 | 0.00 | 0.1 | 0.1 | 0.00 |
| Malignant neoplastic disease | 8.0 | 8.4 | -0.01 | 8.3 | 8.2 | 0.00 |
| Malignant tumor of breast | 2.1 | 2.1 | 0.00 | 2.2 | 2.1 | 0.00 |
| Malignant tumor of colon | 0.3 | 0.3 | -0.01 | 0.3 | 0.3 | 0.00 |
| Malignant tumor of lung | 0.4 | 0.3 | 0.01 | 0.4 | 0.4 | 0.00 |
| Malignant tumor of urinary bladder | 0.2 | 0.3 | -0.01 | 0.2 | 0.3 | 0.00 |
| Primary malignant neoplasm of prostate | 0.6 | 0.7 | -0.01 | 0.6 | 0.6 | 0.00 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 37.3 | 38.2 | -0.02 | 38.0 | 37.9 | 0.00 |
| Antibacterials for systemic use | 49.3 | 49.7 | -0.01 | 49.9 | 49.9 | 0.00 |
| Antidepressants | 45.6 | 45.4 | 0.00 | 46.0 | 45.8 | 0.00 |
| Antiepileptics | 32.9 | 33.3 | -0.01 | 33.5 | 33.3 | 0.00 |
| Antiinflammatory and antirheumatic products | 45.3 | 47.7 | -0.05 | 46.8 | 46.6 | 0.00 |
| Antineoplastic agents | 38.6 | 35.9 | 0.06 | 37.0 | 37.3 | 0.00 |
| Antithrombotic agents | 15.7 | 18.3 | -0.07 | 17.2 | 17.0 | 0.00 |
| Beta blocking agents | 28.8 | 30.2 | -0.03 | 29.7 | 29.6 | 0.00 |
| Calcium channel blockers | 21.7 | 22.0 | -0.01 | 22.0 | 21.9 | 0.00 |
| Diuretics | 35.6 | 35.8 | 0.00 | 35.9 | 35.9 | 0.00 |
| Drugs for acid related disorders | 47.6 | 47.4 | 0.00 | 47.7 | 47.8 | 0.00 |
| Drugs for obstructive airway diseases | 50.2 | 40.6 | 0.19 | 45.8 | 45.5 | 0.01 |
| Immunosuppressants | 52.8 | 50.2 | 0.05 | 51.4 | 51.5 | 0.00 |
| Lipid modifying agents | 34.8 | 35.9 | -0.02 | 35.6 | 35.5 | 0.00 |
| Opioids | 41.8 | 44.3 | -0.05 | 43.5 | 43.2 | 0.01 |
| Psycholeptics | 39.2 | 38.4 | 0.02 | 39.3 | 39.2 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 6.7 | 6.5 | 0.01 | 6.8 | 6.7 | 0.00 |

### S6.2.9. Optum

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.3 | 0.2 | 0.00 | 0.2 | 0.3 | 0.00 |
| 20-24 | 0.8 | 0.8 | 0.00 | 0.9 | 1.0 | -0.01 |
| 25-29 | 1.5 | 1.4 | 0.01 | 1.5 | 1.4 | 0.01 |
| 30-34 | 3.1 | 2.7 | 0.02 | 3.0 | 2.8 | 0.01 |
| 35-39 | 4.4 | 4.2 | 0.01 | 4.3 | 4.4 | -0.01 |
| 40-44 | 6.8 | 6.0 | 0.03 | 6.6 | 6.4 | 0.01 |
| 45-49 | 8.6 | 8.6 | 0.00 | 8.6 | 8.9 | -0.01 |
| 55-59 | 14.0 | 13.5 | 0.01 | 13.9 | 13.6 | 0.01 |
| 60-64 | 13.3 | 13.2 | 0.00 | 13.3 | 13.0 | 0.01 |
| 65-69 | 12.1 | 12.8 | -0.02 | 12.4 | 12.6 | -0.01 |
| 70-74 | 10.2 | 10.8 | -0.02 | 10.2 | 10.3 | 0.00 |
| 75-79 | 7.2 | 7.8 | -0.02 | 7.2 | 7.4 | -0.01 |
| 80-84 | 4.4 | 4.8 | -0.02 | 4.4 | 4.5 | -0.01 |
| 85-89 | 1.7 | 1.9 | -0.02 | 1.8 | 1.8 | 0.00 |
| Gender: female | 84.9 | 82.9 | 0.06 | 84.0 | 83.9 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 64.9 | 48.7 | 0.33 | 57.7 | 57.7 | 0.00 |
| Chronic obstructive lung disease | 14.8 | 11.0 | 0.11 | 13.0 | 13.1 | 0.00 |
| Crohn's disease | 0.7 | 0.7 | 0.01 | 0.8 | 0.6 | 0.02 |
| Dementia | 1.5 | 1.9 | -0.03 | 1.7 | 1.9 | -0.02 |
| Depressive disorder | 20.7 | 21.4 | -0.02 | 21.3 | 21.2 | 0.00 |
| Diabetes mellitus | 20.4 | 20.7 | -0.01 | 20.4 | 20.7 | -0.01 |
| Gastroesophageal reflux disease | 25.6 | 26.1 | -0.01 | 26.1 | 25.8 | 0.01 |
| Gastrointestinal hemorrhage | 4.2 | 4.5 | -0.02 | 4.4 | 4.5 | 0.00 |
| Human immunodeficiency virus infection | 0.2 | 0.2 | 0.00 | 0.2 | 0.2 | 0.00 |
| Hyperlipidemia | 46.3 | 46.7 | -0.01 | 46.4 | 46.3 | 0.00 |
| Hypertensive disorder | 53.9 | 55.5 | -0.03 | 54.6 | 54.8 | 0.00 |
| Lesion of liver | 1.1 | 1.3 | -0.02 | 1.1 | 1.3 | -0.02 |
| Osteoarthritis | 52.5 | 56.2 | -0.07 | 54.5 | 54.5 | 0.00 |
| Pneumonia | 10.7 | 7.2 | 0.12 | 9.0 | 9.0 | 0.00 |
| Psoriasis | 3.3 | 3.0 | 0.01 | 3.2 | 3.1 | 0.01 |
| Renal impairment | 11.1 | 12.4 | -0.04 | 11.5 | 11.7 | -0.01 |
| Rheumatoid arthritis | 84.5 | 83.3 | 0.03 | 84.0 | 84.0 | 0.00 |
| Schizophrenia | 0.2 | 0.2 | -0.01 | 0.2 | 0.2 | 0.00 |
| Ulcerative colitis | 0.7 | 0.8 | -0.01 | 0.8 | 0.8 | 0.00 |
| Urinary tract infectious disease | 17.6 | 19.3 | -0.04 | 18.6 | 18.5 | 0.00 |
| Viral hepatitis C | 1.1 | 1.4 | -0.03 | 1.2 | 1.3 | -0.01 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 4.7 | 6.0 | -0.06 | 5.2 | 5.5 | -0.01 |
| Cerebrovascular disease | 6.5 | 7.0 | -0.02 | 6.6 | 6.8 | -0.01 |
| Coronary arteriosclerosis | 11.4 | 12.1 | -0.02 | 11.6 | 11.8 | 0.00 |
| Heart disease | 29.8 | 31.2 | -0.03 | 30.4 | 30.6 | 0.00 |
| Heart failure | 7.5 | 7.4 | 0.00 | 7.6 | 7.4 | 0.01 |
| Ischemic heart disease | 7.0 | 7.3 | -0.01 | 7.1 | 7.3 | 0.00 |
| Peripheral vascular disease | 4.9 | 5.2 | -0.02 | 5.1 | 5.0 | 0.01 |
| Pulmonary embolism | 1.3 | 1.4 | -0.01 | 1.3 | 1.4 | 0.00 |
| Venous thrombosis | 2.5 | 2.9 | -0.02 | 2.6 | 2.8 | -0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.6 | 1.5 | 0.01 | 1.7 | 1.5 | 0.01 |
| Malignant lymphoma | 0.9 | 0.9 | 0.00 | 0.9 | 0.9 | 0.01 |
| Malignant neoplasm of anorectum | 0.1 | 0.2 | -0.02 | 0.1 | 0.2 | -0.01 |
| Malignant neoplastic disease | 11.3 | 11.9 | -0.02 | 11.4 | 11.6 | -0.01 |
| Malignant tumor of breast | 2.7 | 2.7 | 0.00 | 2.6 | 2.7 | 0.00 |
| Malignant tumor of colon | 0.4 | 0.4 | -0.01 | 0.3 | 0.4 | -0.01 |
| Malignant tumor of lung | 0.6 | 0.4 | 0.02 | 0.5 | 0.5 | -0.01 |
| Malignant tumor of urinary bladder | 0.3 | 0.4 | -0.03 | 0.3 | 0.4 | -0.01 |
| Primary malignant neoplasm of prostate | 0.8 | 0.9 | -0.02 | 0.8 | 0.8 | 0.00 |
| Medication use |  |  |  |  |  |  |
| Antidepressants | 42.5 | 42.6 | 0.00 | 43.0 | 42.8 | 0.00 |
| Antiepileptics | 27.7 | 28.2 | -0.01 | 28.4 | 27.9 | 0.01 |
| Antiinflammatory and antirheumatic products | 44.2 | 45.7 | -0.03 | 45.5 | 45.2 | 0.01 |
| Antineoplastic agents | 35.2 | 33.1 | 0.04 | 33.4 | 34.2 | -0.02 |
| Antipsoriatics | 1.1 | 1.0 | 0.01 | 1.1 | 1.1 | 0.01 |
| Antithrombotic agents | 13.1 | 15.4 | -0.07 | 14.0 | 14.2 | 0.00 |
| Beta blocking agents | 25.8 | 27.1 | -0.03 | 26.5 | 26.4 | 0.00 |
| Drugs for acid related disorders | 41.8 | 41.9 | 0.00 | 41.9 | 41.8 | 0.00 |
| Drugs for obstructive airway diseases | 45.4 | 36.4 | 0.18 | 41.2 | 41.1 | 0.00 |
| Immunosuppressants | 49.8 | 47.4 | 0.05 | 48.3 | 48.4 | 0.00 |
| Lipid modifying agents | 32.4 | 33.2 | -0.02 | 32.6 | 32.6 | 0.00 |
| Opioids | 41.0 | 43.3 | -0.05 | 42.7 | 42.0 | 0.01 |
| Psycholeptics | 35.8 | 36.3 | -0.01 | 36.5 | 36.6 | 0.00 |
| Psychostimulants, agents used for adhd and nootropics | 5.2 | 4.8 | 0.02 | 5.3 | 5.0 | 0.02 |

### S6.2.10. PanTher

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 15-19 | 0.2 | 0.3 | -0.02 | 0.2 | 0.3 | -0.02 |
| 20-24 | 0.9 | 0.9 | 0.00 | 1.1 | 0.8 | 0.03 |
| 25-29 | 1.6 | 1.7 | 0.00 | 1.9 | 1.6 | 0.02 |
| 30-34 | 2.7 | 3.1 | -0.03 | 2.9 | 2.9 | 0.00 |
| 35-39 | 3.7 | 4.5 | -0.04 | 4.1 | 4.1 | 0.00 |
| 40-44 | 5.3 | 5.9 | -0.03 | 5.7 | 6.0 | -0.01 |
| 45-49 | 7.1 | 7.4 | -0.01 | 7.3 | 7.4 | 0.00 |
| 50-54 | 10.5 | 10.5 | 0.00 | 10.5 | 10.3 | 0.01 |
| 55-59 | 13.1 | 13.8 | -0.02 | 13.2 | 13.9 | -0.02 |
| 60-64 | 13.7 | 13.6 | 0.00 | 13.9 | 13.8 | 0.00 |
| 65-69 | 12.6 | 12.2 | 0.01 | 12.4 | 12.5 | 0.00 |
| 70-74 | 10.9 | 10.5 | 0.01 | 10.5 | 10.6 | 0.00 |
| 75-79 | 8.6 | 7.6 | 0.04 | 8.2 | 7.9 | 0.01 |
| 80-84 | 6.4 | 6.0 | 0.02 | 5.9 | 5.8 | 0.00 |
| 85-89 | 2.6 | 2.1 | 0.04 | 2.3 | 2.0 | 0.02 |
| Gender: female | 82.3 | 82.1 | 0.00 | 82.9 | 82.7 | 0.01 |
| Race |  |  |  |  |  |  |
| race = Asian | 1.1 | 1.0 | 0.01 | 1.0 | 1.0 | 0.01 |
| race = Black or African American | 10.5 | 9.4 | 0.04 | 10.0 | 9.4 | 0.02 |
| race = White | 83.4 | 84.3 | -0.02 | 84.1 | 84.4 | -0.01 |
| Ethnicity |  |  |  |  |  |  |
| ethnicity = Hispanic or Latino | 4.6 | 4.4 | 0.01 | 4.5 | 4.5 | 0.00 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 57.2 | 43.2 | 0.28 | 52.6 | 51.8 | 0.02 |
| Attention deficit hyperactivity disorder | 1.0 | 1.5 | -0.04 | 1.1 | 1.4 | -0.03 |
| Chronic liver disease | 3.3 | 3.4 | -0.01 | 3.4 | 3.4 | 0.00 |
| Chronic obstructive lung disease | 19.5 | 11.0 | 0.24 | 15.2 | 15.1 | 0.00 |
| Crohn's disease | 0.6 | 0.6 | 0.00 | 0.7 | 0.5 | 0.02 |
| Dementia | 2.2 | 1.9 | 0.02 | 1.9 | 1.9 | 0.00 |
| Depressive disorder | 23.7 | 23.4 | 0.01 | 23.9 | 23.4 | 0.01 |
| Diabetes mellitus | 19.3 | 18.3 | 0.03 | 18.8 | 18.4 | 0.01 |
| Gastroesophageal reflux disease | 29.6 | 28.1 | 0.03 | 29.2 | 28.8 | 0.01 |
| Human immunodeficiency virus infection | 0.2 | 0.1 | 0.01 | 0.2 | 0.2 | 0.00 |
| Hyperlipidemia | 40.8 | 38.8 | 0.04 | 39.7 | 39.4 | 0.01 |
| Hypertensive disorder | 51.4 | 49.7 | 0.03 | 50.4 | 50.4 | 0.00 |
| Lesion of liver | 1.5 | 1.5 | 0.00 | 1.6 | 1.4 | 0.01 |
| Obesity | 17.5 | 18.1 | -0.02 | 17.6 | 17.8 | -0.01 |
| Osteoarthritis | 41.1 | 42.2 | -0.02 | 41.4 | 41.0 | 0.01 |
| Pneumonia | 20.6 | 7.6 | 0.38 | 14.7 | 12.4 | 0.07 |
| Psoriasis | 2.1 | 2.1 | 0.00 | 2.2 | 2.1 | 0.01 |
| Renal impairment | 14.7 | 12.8 | 0.06 | 13.2 | 12.6 | 0.02 |
| Rheumatoid arthritis | 84.8 | 83.4 | 0.04 | 84.0 | 84.3 | -0.01 |
| Schizophrenia | 0.3 | 0.3 | -0.01 | 0.2 | 0.3 | -0.01 |
| Ulcerative colitis | 0.5 | 0.7 | -0.03 | 0.6 | 0.6 | 0.00 |
| Urinary tract infectious disease | 13.1 | 14.1 | -0.03 | 13.7 | 13.2 | 0.02 |
| Viral hepatitis C | 1.3 | 1.1 | 0.02 | 1.3 | 1.1 | 0.01 |
| Visual system disorder | 21.4 | 22.6 | -0.03 | 21.5 | 21.6 | 0.00 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 7.5 | 6.9 | 0.02 | 6.9 | 7.1 | -0.01 |
| Cerebrovascular disease | 5.1 | 4.5 | 0.03 | 4.8 | 4.5 | 0.01 |
| Coronary arteriosclerosis | 13.4 | 12.1 | 0.04 | 12.5 | 12.5 | 0.00 |
| Heart disease | 33.3 | 29.6 | 0.08 | 31.1 | 30.3 | 0.02 |
| Heart failure | 11.3 | 8.0 | 0.12 | 9.4 | 8.6 | 0.03 |
| Ischemic heart disease | 8.0 | 6.7 | 0.05 | 7.2 | 7.0 | 0.01 |
| Pulmonary embolism | 1.7 | 1.8 | -0.01 | 1.7 | 1.7 | 0.00 |
| Venous thrombosis | 3.3 | 3.4 | -0.01 | 3.3 | 3.1 | 0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.7 | 1.7 | 0.00 | 1.8 | 1.6 | 0.01 |
| Malignant lymphoma | 0.8 | 1.0 | -0.02 | 0.8 | 0.9 | -0.02 |
| Malignant neoplasm of anorectum | 0.4 | 0.5 | -0.02 | 0.3 | 0.4 | 0.00 |
| Malignant neoplastic disease | 11.8 | 13.3 | -0.05 | 12.2 | 12.5 | -0.01 |
| Malignant tumor of breast | 2.5 | 3.1 | -0.03 | 2.7 | 2.8 | -0.01 |
| Malignant tumor of colon | 0.5 | 0.6 | -0.01 | 0.5 | 0.5 | 0.01 |
| Malignant tumor of lung | 1.0 | 0.7 | 0.04 | 0.9 | 0.9 | -0.01 |
| Malignant tumor of urinary bladder | 0.3 | 0.4 | -0.02 | 0.3 | 0.3 | -0.01 |
| Primary malignant neoplasm of prostate | 0.8 | 0.8 | 0.00 | 0.9 | 0.7 | 0.02 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 37.6 | 36.5 | 0.02 | 36.9 | 36.5 | 0.01 |
| Antibacterials for systemic use | 53.0 | 51.6 | 0.03 | 52.1 | 50.8 | 0.03 |
| Antidepressants | 47.6 | 48.1 | -0.01 | 48.1 | 48.3 | 0.00 |
| Antiepileptics | 33.3 | 34.7 | -0.03 | 33.8 | 34.1 | 0.00 |
| Antiinflammatory and antirheumatic products | 47.1 | 50.6 | -0.07 | 48.8 | 49.7 | -0.02 |
| Antineoplastic agents | 39.5 | 36.8 | 0.06 | 38.1 | 38.6 | -0.01 |
| Antithrombotic agents | 47.7 | 44.7 | 0.06 | 45.4 | 44.1 | 0.03 |
| Beta blocking agents | 35.2 | 35.8 | -0.01 | 35.0 | 34.9 | 0.00 |
| Calcium channel blockers | 24.0 | 22.2 | 0.04 | 22.9 | 22.8 | 0.00 |
| Diuretics | 40.3 | 38.3 | 0.04 | 39.3 | 38.9 | 0.01 |
| Drugs for acid related disorders | 61.8 | 61.0 | 0.02 | 61.0 | 61.0 | 0.00 |
| Drugs for obstructive airway diseases | 64.7 | 52.3 | 0.25 | 58.6 | 59.1 | -0.01 |
| Drugs used in diabetes | 19.7 | 19.2 | 0.02 | 19.1 | 19.1 | 0.00 |
| Immunosuppressants | 56.0 | 53.6 | 0.05 | 55.1 | 55.5 | -0.01 |
| Lipid modifying agents | 37.0 | 36.1 | 0.02 | 36.2 | 35.9 | 0.01 |
| Opioids | 52.5 | 53.9 | -0.03 | 52.3 | 52.2 | 0.00 |
| Psycholeptics | 49.8 | 49.6 | 0.00 | 49.2 | 49.5 | -0.01 |
| Psychostimulants, agents used for adhd and nootropics | 5.6 | 6.6 | -0.04 | 6.0 | 6.3 | -0.01 |

### S6.2.11. SIDIAP

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | <3.8 | <0.7 | 0.09 | <2.8 | <0.7 | 0.07 |
| 30-34 | <3.8 | 4.1 | -0.10 | <2.8 | 4.0 | -0.12 |
| 35-39 | 3.8 | 5.5 | -0.08 | 6.1 | 5.4 | 0.03 |
| 40-44 | 6.2 | 6.3 | 0.00 | 3.3 | 6.1 | -0.13 |
| 45-49 | 4.6 | 6.0 | -0.06 | 5.7 | 5.8 | -0.01 |
| 50-54 | 13.1 | 8.3 | 0.16 | 17.6 | 8.3 | 0.28 |
| 55-59 | 15.4 | 10.3 | 0.15 | 17.5 | 10.5 | 0.20 |
| 60-64 | 10.8 | 12.7 | -0.06 | 12.9 | 12.9 | 0.00 |
| 65-69 | 7.7 | 12.2 | -0.15 | 5.0 | 12.5 | -0.27 |
| 70-74 | 12.3 | 11.1 | 0.04 | 10.0 | 11.0 | -0.03 |
| 75-79 | 7.7 | 8.9 | -0.04 | 4.5 | 8.6 | -0.17 |
| 80-84 | 7.7 | 8.2 | -0.02 | 9.0 | 8.3 | 0.03 |
| 85-89 | 6.2 | 3.1 | 0.15 | 4.0 | 3.3 | 0.03 |
| 90-94 | <3.8 | <0.7 | 0.09 | <2.8 | <0.7 | 0.12 |
| Gender: female | 80.0 | 77.6 | 0.06 | 79.9 | 77.9 | 0.05 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 26.9 | 20.1 | 0.16 | 29.4 | 20.6 | 0.20 |
| Chronic liver disease | <3.8 | 1.2 | -0.04 | <2.8 | 1.2 | -0.09 |
| Chronic obstructive lung disease | 4.6 | 2.6 | 0.11 | 3.7 | 2.7 | 0.05 |
| Dementia | <3.8 | 0.9 | -0.01 | <2.8 | 0.9 | -0.06 |
| Depressive disorder | <3.8 | 4.7 | -0.08 | <2.8 | 4.9 | -0.11 |
| Diabetes mellitus | <3.8 | 3.6 | -0.13 | <2.8 | 3.5 | -0.10 |
| Gastroesophageal reflux disease | <3.8 | 1.3 | 0.02 | <2.8 | 1.3 | -0.04 |
| Gastrointestinal hemorrhage | 5.4 | 2.0 | 0.18 | 5.5 | 2.1 | 0.18 |
| Hyperlipidemia | 4.6 | 6.4 | -0.08 | 3.8 | 6.3 | -0.12 |
| Hypertensive disorder | 6.2 | 7.1 | -0.04 | 6.3 | 7.0 | -0.03 |
| Obesity | 7.7 | 8.0 | -0.01 | 9.8 | 7.9 | 0.07 |
| Osteoarthritis | 4.6 | 3.8 | 0.04 | 5.2 | 3.7 | 0.07 |
| Pneumonia | <3.8 | 3.4 | -0.06 | <2.8 | 3.4 | -0.14 |
| Renal impairment | <3.8 | 2.9 | -0.04 | <2.8 | 2.8 | -0.03 |
| Rheumatoid arthritis | 20.8 | 29.3 | -0.20 | 22.9 | 28.8 | -0.13 |
| Urinary tract infectious disease | 8.5 | 10.8 | -0.08 | 5.5 | 10.8 | -0.19 |
| Viral hepatitis C | <3.8 | <0.7 | 0.02 | <2.8 | <0.7 | -0.04 |
| Visual system disorder | 17.7 | 20.8 | -0.08 | 14.6 | 20.9 | -0.16 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Cerebrovascular disease | 4.6 | 4.1 | 0.03 | 5.5 | 4.3 | 0.06 |
| Heart disease | 6.9 | 10.1 | -0.11 | 6.9 | 10.0 | -0.11 |
| Heart failure | <3.8 | 1.5 | -0.07 | <2.8 | 1.5 | -0.10 |
| Ischemic heart disease | <3.8 | 3.4 | -0.02 | <2.8 | 3.4 | -0.09 |
| Peripheral vascular disease | 8.5 | 6.4 | 0.08 | 5.8 | 6.4 | -0.02 |
| Venous thrombosis | <3.8 | <0.7 | 0.04 | <2.8 | <0.7 | -0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Malignant neoplastic disease | <3.8 | 4.7 | -0.13 | <2.8 | 4.8 | -0.18 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 26.9 | 31.2 | -0.09 | 21.0 | 31.1 | -0.23 |
| Antibacterials for systemic use | 27.7 | 27.1 | 0.01 | 23.2 | 27.6 | -0.10 |
| Antidepressants | 30.8 | 28.9 | 0.04 | 33.8 | 29.2 | 0.10 |
| Antiepileptics | 16.2 | 14.0 | 0.06 | 14.3 | 14.2 | 0.00 |
| Antiinflammatory and antirheumatic products | 62.3 | 64.4 | -0.04 | 55.1 | 64.6 | -0.20 |
| Antineoplastic agents | 27.7 | 17.6 | 0.24 | 18.1 | 19.1 | -0.03 |
| Antipsoriatics | <3.8 | 1.2 | -0.04 | <2.8 | 1.1 | 0.08 |
| Antithrombotic agents | 20.8 | 25.2 | -0.11 | 22.5 | 25.0 | -0.06 |
| Beta blocking agents | 15.4 | 15.0 | 0.01 | 15.3 | 14.9 | 0.01 |
| Calcium channel blockers | 9.2 | 9.8 | -0.02 | 10.1 | 9.5 | 0.02 |
| Diuretics | 30.0 | 29.3 | 0.02 | 30.3 | 29.3 | 0.02 |
| Drugs for acid related disorders | 89.2 | 83.2 | 0.18 | 82.0 | 83.9 | -0.05 |
| Drugs for obstructive airway diseases | 48.5 | 38.9 | 0.19 | 34.3 | 41.2 | -0.14 |
| Drugs used in diabetes | 11.5 | 14.7 | -0.09 | 11.8 | 14.5 | -0.08 |
| Immunosuppressants | 37.7 | 29.4 | 0.18 | 26.9 | 30.8 | -0.08 |
| Lipid modifying agents | 26.9 | 27.4 | -0.01 | 27.1 | 27.4 | -0.01 |
| Opioids | 16.2 | 22.2 | -0.15 | 13.2 | 22.5 | -0.24 |
| Psycholeptics | 43.8 | 41.3 | 0.05 | 41.1 | 41.6 | -0.01 |
| Psychostimulants, agents used for adhd and nootropics | 5.4 | 2.5 | 0.15 | 3.6 | 2.5 | 0.06 |

### S6.2.12. VA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Before stratification |  |  | After stratification |  |  |
|  | AZM | AMX |  | AZM | AMX |  |
| Characteristic | % | % | Std. diff | % | % | Std. diff |
| Age group |  |  |  |  |  |  |
| 20-24 | <0.1 | 0.1 | 0.00 | <0.1 | 0.1 | 0.00 |
| 25-29 | 0.4 | 0.2 | 0.03 | 0.4 | 0.3 | 0.03 |
| 30-34 | 1.0 | 1.0 | 0.00 | 1.2 | 1.1 | 0.02 |
| 35-39 | 1.3 | 1.5 | -0.02 | 1.3 | 1.4 | -0.01 |
| 40-44 | 2.5 | 2.8 | -0.02 | 3.1 | 2.7 | 0.02 |
| 45-49 | 4.9 | 5.5 | -0.03 | 5.9 | 5.4 | 0.02 |
| 50-54 | 8.8 | 9.1 | -0.01 | 9.6 | 9.0 | 0.02 |
| 55-59 | 13.4 | 14.6 | -0.03 | 12.9 | 14.3 | -0.04 |
| 60-64 | 17.6 | 17.2 | 0.01 | 17.1 | 18.0 | -0.02 |
| 65-69 | 18.2 | 17.5 | 0.02 | 17.2 | 17.0 | 0.00 |
| 70-74 | 13.7 | 13.9 | -0.01 | 14.5 | 14.2 | 0.01 |
| 75-79 | 8.9 | 8.6 | 0.01 | 8.2 | 8.6 | -0.01 |
| 80-84 | 5.7 | 5.4 | 0.02 | 5.4 | 5.2 | 0.00 |
| 85-89 | 2.9 | 2.0 | 0.05 | 2.5 | 2.0 | 0.03 |
| 90-94 | 0.6 | 0.5 | 0.02 | 0.5 | 0.6 | -0.01 |
| 95-99 | <0.1 | <0.1 | 0.01 | <0.1 | <0.1 | 0.00 |
| Gender: female | 18.6 | 16.7 | 0.05 | 18.7 | 17.5 | 0.03 |
| Race |  |  |  |  |  |  |
| race = Asian | 0.4 | 0.3 | 0.01 | 0.3 | 0.3 | 0.01 |
| race = Black or African American | 16.5 | 17.8 | -0.04 | 17.0 | 17.7 | -0.02 |
| race = White | 74.0 | 71.1 | 0.06 | 73.2 | 71.8 | 0.03 |
| race = Unknown | 7.7 | 8.9 | -0.04 | 8.0 | 8.4 | -0.02 |
| race = Native Hawaiian or Other Pacific Islander | 0.6 | 0.8 | -0.02 | 0.7 | 0.8 | -0.01 |
| race = American Indian or Alaska Native | 0.8 | 1.1 | -0.02 | 0.8 | 1.0 | -0.02 |
| Ethnicity |  |  |  |  |  |  |
| ethnicity = Hispanic or Latino | 4.7 | 5.2 | -0.02 | 3.9 | 4.8 | -0.04 |
| ethnicity = Not Hispanic or Latino | 91.1 | 89.3 | 0.06 | 91.6 | 89.9 | 0.06 |
| Medical history: General |  |  |  |  |  |  |
| Acute respiratory disease | 48.2 | 29.9 | 0.38 | 40.3 | 40.4 | 0.00 |
| Attention deficit hyperactivity disorder | 0.4 | 0.6 | -0.04 | 0.4 | 0.6 | -0.03 |
| Chronic liver disease | 3.7 | 4.6 | -0.04 | 3.7 | 4.2 | -0.03 |
| Chronic obstructive lung disease | 33.7 | 22.5 | 0.25 | 26.1 | 27.6 | -0.03 |
| Crohn's disease | 0.4 | 0.4 | 0.00 | 0.4 | 0.3 | 0.02 |
| Depressive disorder | 28.4 | 27.9 | 0.01 | 29.5 | 28.5 | 0.02 |
| Diabetes mellitus | 27.4 | 29.5 | -0.05 | 28.0 | 28.2 | 0.00 |
| Gastroesophageal reflux disease | 7.2 | 8.0 | -0.03 | 7.4 | 7.7 | -0.01 |
| Gastrointestinal hemorrhage | 3.2 | 3.7 | -0.03 | 3.8 | 3.2 | 0.03 |
| Human immunodeficiency virus infection | 0.3 | 0.4 | -0.02 | 0.3 | 0.4 | -0.02 |
| Hyperlipidemia | 48.8 | 46.6 | 0.04 | 47.0 | 47.0 | 0.00 |
| Hypertensive disorder | 64.7 | 63.3 | 0.03 | 63.8 | 63.3 | 0.01 |
| Lesion of liver | 1.5 | 1.9 | -0.03 | 1.7 | 1.9 | -0.02 |
| Obesity | 18.4 | 18.4 | 0.00 | 17.8 | 18.5 | -0.02 |
| Osteoarthritis | 42.8 | 43.8 | -0.02 | 42.6 | 42.9 | 0.00 |
| Pneumonia | 18.2 | 7.9 | 0.31 | 12.9 | 11.4 | 0.04 |
| Psoriasis | 2.4 | 2.5 | 0.00 | 2.5 | 2.2 | 0.02 |
| Renal impairment | 11.9 | 11.8 | 0.00 | 11.4 | 11.2 | 0.01 |
| Rheumatoid arthritis | 87.3 | 86.0 | 0.04 | 86.0 | 86.7 | -0.02 |
| Schizophrenia | 0.7 | 1.1 | -0.04 | 1.1 | 1.1 | 0.00 |
| Ulcerative colitis | 0.4 | 0.5 | -0.02 | 0.5 | 0.4 | 0.01 |
| Urinary tract infectious disease | 5.9 | 8.3 | -0.09 | 7.4 | 7.2 | 0.01 |
| Visual system disorder | 65.7 | 65.2 | 0.01 | 65.2 | 64.9 | 0.01 |
| Medical history: Cardiovascular disease |  |  |  |  |  |  |
| Atrial fibrillation | 7.4 | 8.3 | -0.03 | 7.9 | 8.1 | -0.01 |
| Cerebrovascular disease | 6.1 | 5.6 | 0.02 | 6.1 | 5.4 | 0.03 |
| Coronary arteriosclerosis | 19.5 | 18.3 | 0.03 | 18.6 | 18.0 | 0.02 |
| Heart disease | 39.8 | 38.2 | 0.03 | 38.7 | 37.7 | 0.02 |
| Heart failure | 11.8 | 9.9 | 0.06 | 11.3 | 10.2 | 0.04 |
| Ischemic heart disease | 15.7 | 15.2 | 0.01 | 15.2 | 15.1 | 0.00 |
| Peripheral vascular disease | 17.6 | 18.4 | -0.02 | 18.1 | 18.0 | 0.00 |
| Pulmonary embolism | 1.5 | 1.6 | -0.01 | 1.7 | 1.5 | 0.02 |
| Venous thrombosis | 2.3 | 2.5 | -0.01 | 2.4 | 2.2 | 0.01 |
| Medical history: Neoplasms |  |  |  |  |  |  |
| Hematologic neoplasm | 1.8 | 2.2 | -0.03 | 1.9 | 2.2 | -0.02 |
| Malignant lymphoma | 1.2 | 1.3 | -0.01 | 1.2 | 1.2 | 0.00 |
| Malignant neoplasm of anorectum | 0.2 | 0.2 | 0.00 | 0.1 | 0.1 | 0.00 |
| Malignant neoplastic disease | 16.3 | 16.4 | 0.00 | 17.1 | 16.0 | 0.03 |
| Malignant tumor of breast | 0.8 | 0.4 | 0.06 | 0.8 | 0.4 | 0.05 |
| Malignant tumor of colon | 0.6 | 0.8 | -0.03 | 0.5 | 0.7 | -0.03 |
| Malignant tumor of lung | 1.1 | 1.0 | 0.00 | 1.0 | 1.2 | -0.02 |
| Malignant tumor of urinary bladder | 1.2 | 1.1 | 0.00 | 1.3 | 1.1 | 0.02 |
| Primary malignant neoplasm of prostate | 4.6 | 5.0 | -0.02 | 5.0 | 4.9 | 0.01 |
| Medication use |  |  |  |  |  |  |
| Agents acting on the renin-angiotensin system | 45.4 | 45.3 | 0.00 | 44.8 | 44.9 | 0.00 |
| Antiepileptics | 29.8 | 31.3 | -0.03 | 32.1 | 30.4 | 0.04 |
| Antiinflammatory and antirheumatic products | 49.5 | 51.7 | -0.04 | 51.6 | 51.5 | 0.00 |
| Antineoplastic agents | 45.5 | 39.0 | 0.13 | 41.5 | 42.1 | -0.01 |
| Antipsoriatics | 1.8 | 1.6 | 0.02 | 2.2 | 1.4 | 0.06 |
| Antithrombotic agents | 45.3 | 45.3 | 0.00 | 45.7 | 43.9 | 0.04 |
| Beta blocking agents | 40.4 | 41.4 | -0.02 | 41.0 | 40.2 | 0.02 |
| Calcium channel blockers | 27.4 | 27.6 | -0.01 | 28.2 | 27.0 | 0.03 |
| Diuretics | 42.4 | 41.4 | 0.02 | 42.3 | 41.3 | 0.02 |
| Drugs for acid related disorders | 71.1 | 70.4 | 0.01 | 71.1 | 70.3 | 0.02 |
| Drugs for obstructive airway diseases | 57.5 | 41.7 | 0.32 | 48.3 | 49.0 | -0.01 |
| Drugs used in diabetes | 23.1 | 25.1 | -0.05 | 24.4 | 23.9 | 0.01 |
| Immunosuppressants | 58.8 | 52.8 | 0.12 | 54.7 | 55.5 | -0.02 |
| Lipid modifying agents | 51.9 | 49.9 | 0.04 | 50.4 | 49.7 | 0.01 |
| Opioids | 43.7 | 46.6 | -0.06 | 45.3 | 44.1 | 0.02 |
| Psycholeptics | 35.3 | 36.3 | -0.02 | 36.2 | 35.7 | 0.01 |
| Psychostimulants, agents used for adhd and nootropics | 2.7 | 2.9 | -0.02 | 2.9 | 2.9 | 0.00 |

# **S7. Patient counts, events, incident rates**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | 30-day follow-up | | | | | | On-treatment follow-up | | | | | |
| Comparison | Outcome | Database | Patients | | Events | | IR | | Patients | | Events | | IR | |
|  |  |  | T | C | T | C | T | C | T | C | T | C | T | C |
| HCQ vs SSZ | All-cause mortality | CPRD | 9,127 | 11,398 | 6 | 5 | 8.03 | 5.35 | 9,127 | 11,398 | 253 | 386 | 14.02 | 14.56 |
| IMRD | 8,851 | 8,460 | <5 | 6 | <6.91 | 8.66 | 8,851 | 8,460 | 214 | 241 | 12.32 | 12.72 |
| Optum | 51,280 | 17,389 | 20 | 10 | 4.81 | 7.09 | 51,280 | 17,389 | 527 | 66 | 9.88 | 5.29 |
| VA | 32,028 | 14,349 | 45 | 17 | 17.13 | 14.45 | 32,028 | 14,349 | 1,356 | 327 | 24.51 | 18.65 |
| Meta-analysis | 101,286 | 51,596 | <76 | 38 | <9.20 | 9.02 |  |  |  |  |  |  |
| Myocardial infarction | CCAE | 66,630 | 22,374 | 29 | 11 | 5.36 | 6.05 | 66,630 | 22,374 | 240 | 48 | 3.64 | 3.28 |
| MDCD | 8,079 | 2,196 | 13 | 5 | 19.75 | 27.98 | 8,079 | 2,196 | 83 | 14 | 14.32 | 11.39 |
| MDCR | 15,827 | 5,190 | 26 | 10 | 20.17 | 23.68 | 15,827 | 5,190 | 287 | 70 | 15.93 | 17.55 |
| OpenClaims | 620,751 | 183,482 | 369 | 89 | 7.24 | 5.91 | 620,751 | 183,482 | 5,396 | 956 | 6.25 | 5.57 |
| Optum | 51,244 | 17,380 | 51 | 20 | 12.27 | 14.19 | 51,244 | 17,380 | 517 | 121 | 9.79 | 9.81 |
| PanTher | 78,424 | 21,885 | 59 | 12 | 9.29 | 6.77 |  |  |  |  |  |  |
| VA | 32,009 | 14,342 | 30 | 9 | 11.43 | 7.65 | 32,009 | 14,342 | 395 | 137 | 7.22 | 7.89 |
| Meta-analysis | 872,964 | 266,849 | 577 | 156 | 8.08 | 7.14 | 794,540 | 244,964 | 6,918 | 1,346 | 6.52 | 6.08 |
| Cardiovascular events | CCAE | 66,533 | 22,357 | 97 | 36 | 17.96 | 19.83 | 66,533 | 22,357 | 839 | 197 | 12.86 | 13.6 |
| MDCD | 8,041 | 2,186 | 35 | 11 | 53.5 | 61.95 | 8,041 | 2,186 | 388 | 78 | 70.54 | 66.08 |
| MDCR | 15,759 | 5,167 | 117 | 39 | 91.39 | 93.05 | 15,759 | 5,167 | 1,295 | 310 | 76.12 | 82.67 |
| OpenClaims | 619,493 | 183,209 | 1,636 | 470 | 32.2 | 31.28 | 619,493 | 183,209 | 22,657 | 4,394 | 26.94 | 26.16 |
| Optum | 51,095 | 17,340 | 215 | 76 | 51.96 | 54.11 | 51,095 | 17,340 | 2,232 | 490 | 43.8 | 40.92 |
| PanTher | 77,825 | 21,752 | 294 | 70 | 46.7 | 39.79 |  |  |  |  |  |  |
| VA | 31,913 | 14,300 | 120 | 46 | 45.92 | 39.28 | 31,913 | 14,300 | 1,577 | 546 | 29.84 | 32.57 |
| Meta-analysis | 870,659 | 266,311 | 2,514 | 748 | 35.31 | 34.35 | 792,834 | 244,559 | 28,988 | 6,015 | 28.07 | 27.83 |
| Cardiac arrhythmia | AmbEMR | 56,743 | 15,208 | 147 | 43 | 31.61 | 34.5 | 56,743 | 15,208 | 467 | 163 | 25.54 | 29.19 |
| CCAE | 66,430 | 22,337 | 153 | 58 | 28.38 | 32 | 66,430 | 22,337 | 1,301 | 348 | 20.3 | 24.42 |
| CPRD | 9,120 | 11,390 | 7 | 14 | 9.38 | 15 | 9,120 | 11,390 | 113 | 180 | 6.37 | 6.95 |
| DAGermany | 3,883 | 5,040 | <5 | 5 | <15.70 | 12.09 | 3,883 | 5,040 | 22 | 38 | 8.68 | 10.82 |
| IMRD | 8,847 | 8,452 | 8 | 12 | 11.06 | 17.35 | 8,847 | 8,452 | 101 | 123 | 5.9 | 6.64 |
| MDCD | 8,051 | 2,191 | 37 | 10 | 56.48 | 56.15 | 8,051 | 2,191 | 232 | 40 | 41.47 | 33.06 |
| MDCR | 15,763 | 5,165 | 73 | 24 | 56.93 | 57.2 | 15,763 | 5,165 | 726 | 183 | 42.35 | 48.33 |
| OpenClaims | 619,285 | 183,147 | 1,505 | 490 | 29.63 | 32.62 | 619,285 | 183,147 | 19,445 | 4,134 | 23.37 | 24.86 |
| Optum | 51,069 | 17,320 | 159 | 61 | 38.43 | 43.46 | 51,069 | 17,320 | 1,557 | 461 | 30.64 | 39.13 |
| PanTher | 77,008 | 21,581 | 472 | 115 | 75.89 | 65.97 |  |  |  |  |  |  |
| VA | 31,766 | 14,275 | 107 | 45 | 41.12 | 38.48 | 31,766 | 14,275 | 1,391 | 508 | 26.84 | 30.95 |
| Meta-analysis | 947,965 | 306,106 | <2,673 | 877 | <34.48 | 35.03 |  |  |  |  |  |  |
| Bradycardia | AmbEMR | 57,594 | 15,350 | 17 | <5 | 3.6 | <3.97 | 57,594 | 15,350 | 60 | 15 | 3.2 | 2.63 |
| CCAE | 66,640 | 22,373 | 5 | <5 | 0.92 | <2.75 | 66,640 | 22,373 | 69 | 13 | 1.04 | 0.89 |
| CPRD |  |  |  |  |  |  | 9,127 | 11,398 | <5 | <5 | <0.28 | <0.19 |
| IMRD |  |  |  |  |  |  | 8,852 | 8,460 | <5 | <5 | <0.29 | <0.26 |
| MDCD | 8,085 | 2,197 | 6 | <5 | 9.1 | <27.96 | 8,085 | 2,197 | 30 | <5 | 5.14 | <4.02 |
| MDCR |  |  |  |  |  |  | 15,830 | 5,190 | 106 | 25 | 5.84 | 6.21 |
| OpenClaims | 620,919 | 183,510 | 155 | 56 | 3.04 | 3.72 | 620,919 | 183,510 | 2,791 | 507 | 3.22 | 2.95 |
| Optum | 51,259 | 17,386 | 23 | <5 | 5.53 | <3.54 | 51,259 | 17,386 | 256 | 55 | 4.83 | 4.43 |
| PanTher | 78,425 | 21,911 | 62 | 16 | 9.76 | 9.02 |  |  |  |  |  |  |
| VA | 32,018 | 14,345 | 9 | <5 | 3.43 | <4.25 | 32,018 | 14,345 | 231 | 62 | 4.21 | 3.56 |
| Meta-analysis | 914,940 | 277,072 | 277 | <97 | 3.7 | <4.28 | 870,324 | 280,209 | <3,553 | <692 | <3.18 | <2.53 |
| Transient ischemic attack | CCAE | 66,617 | 22,372 | 23 | 6 | 4.25 | 3.3 | 66,617 | 22,372 | 187 | 35 | 2.84 | 2.39 |
| MDCD | 8,078 | 2,198 | 7 | <5 | 10.63 | <27.96 | 8,078 | 2,198 | 58 | 10 | 9.97 | 8.08 |
| MDCR | 15,821 | 5,187 | 17 | 7 | 13.19 | 16.59 | 15,821 | 5,187 | 202 | 47 | 11.18 | 11.74 |
| OpenClaims | 620,812 | 183,511 | 261 | 56 | 5.12 | 3.72 | 620,812 | 183,511 | 3,381 | 615 | 3.91 | 3.58 |
| Optum | 51,235 | 17,377 | 38 | 9 | 9.14 | 6.38 | 51,235 | 17,377 | 375 | 75 | 7.09 | 6.06 |
| PanTher | 78,520 | 21,921 | 26 | 7 | 4.09 | 3.94 |  |  |  |  |  |  |
| VA | 32,010 | 14,346 | 10 | 5 | 3.81 | 4.25 | 32,010 | 14,346 | 153 | 49 | 2.78 | 2.81 |
| Meta-analysis | 873,093 | 266,912 | 382 | <95 | 5.34 | <4.35 | 794,573 | 244,991 | 4,356 | 831 | 4.1 | 3.75 |
| Stroke | CCAE | 66,619 | 22,374 | 26 | 8 | 4.8 | 4.4 | 66,619 | 22,374 | 221 | 41 | 3.35 | 2.81 |
| MDCD | 8,073 | 2,196 | 13 | <5 | 19.76 | <27.98 | 8,073 | 2,196 | 103 | 15 | 17.82 | 12.13 |
| MDCR | 15,825 | 5,186 | 29 | 9 | 22.5 | 21.34 | 15,825 | 5,186 | 300 | 66 | 16.64 | 16.53 |
| OpenClaims | 620,748 | 183,482 | 383 | 98 | 7.52 | 6.51 | 620,748 | 183,482 | 5,413 | 1,122 | 6.27 | 6.54 |
| Optum | 51,239 | 17,376 | 41 | 12 | 9.86 | 8.51 | 51,239 | 17,376 | 562 | 106 | 10.66 | 8.56 |
| PanTher | 78,442 | 21,897 | 52 | 10 | 8.18 | 5.64 |  |  |  |  |  |  |
| VA | 32,008 | 14,341 | 19 | 8 | 7.24 | 6.8 | 32,008 | 14,341 | 241 | 70 | 4.38 | 4.01 |
| Meta-analysis | 872,954 | 266,852 | 563 | <150 | 7.88 | <6.87 |  |  |  |  |  |  |
| Venous thromboembolism | AmbEMR | 57,262 | 15,281 | 52 | 17 | 11.07 | 13.56 | 57,262 | 15,281 | 201 | 68 | 10.81 | 12.05 |
| CCAE | 66,528 | 22,358 | 70 | 23 | 12.96 | 12.67 | 66,528 | 22,358 | 650 | 152 | 9.96 | 10.48 |
| CPRD | 9,118 | 11,390 | <5 | 11 | <6.70 | 11.79 | 9,118 | 11,390 | 130 | 177 | 7.35 | 6.79 |
| DAGermany | 3,881 | 5,033 | <5 | 6 | <15.70 | 14.53 | 3,881 | 5,033 | 34 | 47 | 13.56 | 13.43 |
| IMRD | 8,841 | 8,455 | 5 | 10 | 6.92 | 14.45 | 8,841 | 8,455 | 116 | 123 | 6.79 | 6.59 |
| MDCD | 8,059 | 2,196 | 24 | <5 | 36.57 | <27.98 | 8,059 | 2,196 | 157 | 19 | 27.6 | 15.47 |
| MDCR | 15,780 | 5,176 | 41 | 8 | 31.9 | 18.99 | 15,780 | 5,176 | 442 | 89 | 24.86 | 22.63 |
| OpenClaims | 620,093 | 183,330 | 788 | 237 | 15.48 | 15.75 | 620,093 | 183,330 | 10,006 | 2,001 | 11.74 | 11.77 |
| Optum | 51,153 | 17,355 | 104 | 31 | 25.08 | 22.03 | 51,153 | 17,355 | 949 | 207 | 18.23 | 16.87 |
| PanTher | 78,092 | 21,804 | 241 | 52 | 38.15 | 29.47 |  |  |  |  |  |  |
| VA | 31,962 | 14,328 | 42 | 22 | 16.03 | 18.73 | 31,962 | 14,328 | 583 | 208 | 10.76 | 12.09 |
| Meta-analysis | 950,769 | 306,706 | <1,377 | <422 | <17.70 | <16.81 | 872,677 | 284,902 | 13,268 | 3,091 | 12.03 | 11.32 |
| Gastrointestil bleeding | CCAE | 66,621 | 22,357 | 40 | 12 | 7.39 | 6.61 | 66,621 | 22,357 | 332 | 54 | 5.05 | 3.69 |
| MDCD | 8,071 | 2,191 | 16 | <5 | 24.33 | <28.05 | 8,071 | 2,191 | 109 | 13 | 18.9 | 10.51 |
| MDCR | 15,813 | 5,177 | 31 | 7 | 24.06 | 16.62 | 15,813 | 5,177 | 350 | 62 | 19.49 | 15.49 |
| OpenClaims | 620,631 | 183,371 | 438 | 126 | 8.6 | 8.37 | 620,631 | 183,371 | 6,086 | 1,108 | 7.06 | 6.46 |
| Optum | 51,218 | 17,345 | 68 | 13 | 16.37 | 9.24 | 51,218 | 17,345 | 658 | 118 | 12.51 | 9.53 |
| PanTher | 78,411 | 21,890 | 78 | 18 | 12.28 | 10.15 |  |  |  |  |  |  |
| VA | 31,993 | 14,334 | 26 | 16 | 9.91 | 13.62 | 31,993 | 14,334 | 390 | 143 | 7.12 | 8.23 |
| Meta-analysis | 872,758 | 266,665 | 697 | <197 | 9.76 | <9.03 |  |  |  |  |  |  |
| Acute rel failure | CCAE | 66,584 | 22,362 | 72 | 27 | 13.32 | 14.87 | 66,584 | 22,362 | 526 | 96 | 8.01 | 6.59 |
| MDCD | 8,051 | 2,189 | 41 | 13 | 62.61 | 73.1 | 8,051 | 2,189 | 256 | 44 | 45.23 | 36.48 |
| MDCR | 15,797 | 5,181 | 60 | 17 | 46.67 | 40.37 | 15,797 | 5,181 | 608 | 133 | 34.22 | 33.69 |
| OpenClaims | 620,101 | 183,354 | 1,061 | 308 | 20.85 | 20.47 | 620,101 | 183,354 | 13,812 | 2,404 | 16.18 | 14.1 |
| Optum | 51,166 | 17,353 | 163 | 54 | 39.32 | 38.39 | 51,166 | 17,353 | 1,377 | 298 | 26.47 | 24.32 |
| PanTher | 78,010 | 21,797 | 186 | 42 | 29.45 | 23.81 |  |  |  |  |  |  |
| VA | 31,947 | 14,317 | 102 | 35 | 38.98 | 29.84 | 31,947 | 14,317 | 1,214 | 307 | 22.63 | 17.85 |
| Meta-analysis | 871,656 | 266,553 | 1,685 | 496 | 23.63 | 22.75 | 793,646 | 244,756 | 17,793 | 3,282 | 16.97 | 14.94 |
| End stage rel disease | AmbEMR |  |  |  |  |  |  | 57,647 | 15,355 | 12 | <5 | 0.64 | <0.88 |
| CCAE | 66,641 | 22,378 | <5 | <5 | <0.92 | <2.75 | 66,641 | 22,378 | 48 | 8 | 0.73 | 0.55 |
| MDCD |  |  |  |  |  |  | 8,087 | 2,198 | 15 | <5 | 2.56 | <4.01 |
| MDCR | 15,838 | 5,191 | <5 | <5 | <3.87 | <11.83 | 15,838 | 5,191 | 56 | 7 | 3.07 | 1.73 |
| OpenClaims | 621,009 | 183,543 | 70 | 8 | 1.37 | 0.53 | 621,009 | 183,543 | 1,298 | 174 | 1.49 | 1.01 |
| Optum | 51,271 | 17,389 | 7 | <5 | 1.68 | <3.54 | 51,271 | 17,389 | 118 | 19 | 2.22 | 1.52 |
| PanTher | 78,526 | 21,924 | 27 | <5 | 4.24 | <2.82 |  |  |  |  |  |  |
| VA | 32,020 | 14,348 | 5 | <5 | 1.9 | <4.25 | 32,020 | 14,348 | 86 | 27 | 1.56 | 1.54 |
| Meta-analysis | 865,305 | 264,773 | <119 | <33 | <1.68 | <1.52 | 852,513 | 260,402 | 1,633 | <245 | 1.5 | <1.07 |
| Hepatic failure | CCAE | 66,638 | 22,378 | 6 | <5 | 1.11 | <2.75 | 66,638 | 22,378 | 50 | 11 | 0.76 | 0.75 |
| DAGermany |  |  |  |  |  |  | 3,887 | 5,047 | <5 | <5 | <1.95 | <1.40 |
| MDCD | 8,085 | 2,198 | <5 | <5 | <7.58 | <27.95 | 8,085 | 2,198 | 25 | 6 | 4.26 | 4.82 |
| MDCR |  |  |  |  |  |  | 15,841 | 5,189 | 32 | 5 | 1.75 | 1.23 |
| OpenClaims | 621,042 | 183,551 | 42 | 23 | 0.82 | 1.53 | 621,042 | 183,551 | 729 | 151 | 0.84 | 0.87 |
| Optum | 51,267 | 17,387 | 13 | <5 | 3.13 | <3.54 | 51,267 | 17,387 | 102 | 26 | 1.92 | 2.09 |
| PanTher | 78,529 | 21,916 | 32 | 9 | 5.03 | 5.07 |  |  |  |  |  |  |
| VA | 32,025 | 14,348 | 5 | <5 | 1.9 | <4.25 | 32,025 | 14,348 | 61 | 14 | 1.1 | 0.8 |
| Meta-analysis | 857,586 | 261,778 | <103 | <52 | <1.47 | <2.43 | 798,785 | 250,098 | <1,004 | <218 | <0.94 | <0.96 |
| Acute pancreatitis | CCAE | 66,637 | 22,374 | 22 | 7 | 4.06 | 3.85 | 66,637 | 22,374 | 143 | 34 | 2.17 | 2.32 |
| MDCD | 8,077 | 2,196 | 10 | <5 | 15.19 | <27.97 | 8,077 | 2,196 | 55 | 8 | 9.47 | 6.45 |
| MDCR | 15,833 | 5,188 | 6 | <5 | 4.65 | <11.84 | 15,833 | 5,188 | 62 | 15 | 3.4 | 3.7 |
| OpenClaims | 620,956 | 183,525 | 155 | 50 | 3.04 | 3.32 | 620,956 | 183,525 | 1,881 | 390 | 2.17 | 2.26 |
| Optum | 51,259 | 17,384 | 21 | 9 | 5.05 | 6.38 | 51,259 | 17,384 | 171 | 50 | 3.22 | 4.02 |
| PanTher | 78,522 | 21,921 | 21 | 5 | 3.3 | 2.82 |  |  |  |  |  |  |
| VA | 32,023 | 14,347 | 12 | <5 | 4.57 | <4.25 | 32,023 | 14,347 | 106 | 46 | 1.92 | 2.63 |
| Meta-analysis | 873,307 | 266,935 | 247 | <86 | 3.45 | <3.94 | 794,785 | 245,014 | 2,418 | 543 | 2.27 | 2.44 |
| AZM vs AMX | All-cause mortality | Optum | 23,597 | 24,521 | 17 | 17 | 8.88 | 8.55 | 23,597 | 24,521 | 268 | 276 | 15.56 | 18.85 |
| VA | 6,234 | 8,005 | 91 | 52 | 179.23 | 79.42 | 6,234 | 8,005 | 550 | 518 | 51.16 | 45.97 |
| Meta-analysis | 29,831 | 32,526 | 108 | 69 | 44.58 | 26.12 | 29,831 | 32,526 | 818 | 794 | 29.24 | 30.64 |
| Myocardial infarction | CCAE | 32,610 | 32,507 | 13 | 11 | 4.92 | 4.17 | 32,610 | 32,507 | 117 | 94 | 4.33 | 4.33 |
| MDCD | 3,803 | 3,808 | <5 | 6 | <16.21 | 19.4 | 3,803 | 3,808 | 29 | 27 | 11.46 | 13.46 |
| MDCR | 8,119 | 9,254 | 16 | 9 | 24.33 | 11.96 | 8,119 | 9,254 | 166 | 140 | 20.41 | 17.34 |
| OpenClaims | 216,028 | 232,938 | 182 | 173 | 10.26 | 9.05 | 216,028 | 232,938 | 2,065 | 1,732 | 8.11 | 7.94 |
| Optum | 23,565 | 24,484 | 30 | 29 | 15.7 | 14.62 | 23,565 | 24,484 | 179 | 147 | 10.6 | 10.19 |
| PanTher | 18,477 | 16,424 | 26 | 20 | 17.35 | 15.01 |  |  |  |  |  |  |
| VA | 6,203 | 7,978 | 33 | 19 | 65.53 | 29.15 | 6,203 | 7,978 | 154 | 127 | 14.79 | 11.59 |
| Meta-analysis | 308,805 | 327,393 | <305 | 267 | <12.08 | 9.97 | 290,328 | 310,969 | 2,710 | 2,267 | 8.48 | 8.24 |
| Cardiovascular events | CCAE | 32,540 | 32,453 | 68 | 57 | 25.8 | 21.67 | 32,540 | 32,453 | 467 | 351 | 17.73 | 16.54 |
| MDCD | 3,759 | 3,781 | 31 | 30 | 102.07 | 97.98 | 3,759 | 3,781 | 157 | 122 | 69.38 | 67.74 |
| MDCR | 8,030 | 9,188 | 93 | 59 | 143.76 | 79.2 | 8,030 | 9,188 | 657 | 573 | 92.6 | 78.6 |
| OpenClaims | 215,278 | 232,274 | 901 | 784 | 51.08 | 41.18 | 215,278 | 232,274 | 7,835 | 6,884 | 32.54 | 33.34 |
| Optum | 23,434 | 24,361 | 147 | 137 | 77.54 | 69.59 | 23,434 | 24,361 | 723 | 669 | 45.56 | 49.38 |
| PanTher | 17,963 | 16,221 | 123 | 80 | 84.71 | 60.92 |  |  |  |  |  |  |
| VA | 6,047 | 7,866 | 183 | 87 | 378.81 | 136.03 | 6,047 | 7,866 | 544 | 445 | 58.44 | 44.08 |
| Meta-analysis |  |  |  |  |  |  | 289,088 | 309,923 | 10,383 | 9,044 | 34.42 | 34.73 |
| Cardiac arrhythmia | AmbEMR | 13,076 | 11,977 | 27 | 25 | 25.18 | 25.46 | 13,076 | 11,977 | 116 | 90 | 20.7 | 18.79 |
| CCAE | 32,510 | 32,423 | 113 | 67 | 42.94 | 25.5 | 32,510 | 32,423 | 711 | 486 | 28.53 | 23.76 |
| MDCD | 3,781 | 3,787 | 14 | 18 | 45.72 | 58.59 | 3,781 | 3,787 | 88 | 77 | 37.42 | 41.8 |
| MDCR | 8,084 | 9,210 | 45 | 48 | 68.86 | 64.24 | 8,084 | 9,210 | 354 | 361 | 47.87 | 49.98 |
| OpenClaims | 215,473 | 232,391 | 568 | 589 | 32.15 | 30.91 | 215,473 | 232,391 | 5,724 | 4,989 | 23.82 | 24.22 |
| Optum | 23,475 | 24,403 | 90 | 76 | 47.34 | 38.49 | 23,475 | 24,403 | 556 | 482 | 35.52 | 36.2 |
| PanTher | 18,022 | 16,138 | 153 | 111 | 105.13 | 85.09 |  |  |  |  |  |  |
| VA | 6,168 | 7,935 | 58 | 47 | 116.1 | 72.64 | 6,168 | 7,935 | 297 | 289 | 31.93 | 29.25 |
| Bradycardia | AmbEMR |  |  |  |  |  |  | 13,193 | 12,080 | 14 | 14 | 2.36 | 2.81 |
| CCAE | 32,619 | 32,516 | <5 | <5 | <1.89 | <1.90 | 32,619 | 32,516 | 43 | 50 | 1.58 | 2.29 |
| MDCD | 3,807 | 3,810 | <5 | <5 | <16.19 | <16.15 | 3,807 | 3,810 | 19 | 11 | 7.41 | 5.42 |
| MDCR | 8,124 | 9,268 | 5 | <5 | 7.59 | <6.63 | 8,124 | 9,268 | 70 | 86 | 8.51 | 10.63 |
| OpenClaims | 216,124 | 233,035 | 72 | 78 | 4.06 | 4.08 | 216,124 | 233,035 | 1,115 | 1,069 | 4.35 | 4.88 |
| Optum | 23,580 | 24,509 | 10 | 17 | 5.23 | 8.56 | 23,580 | 24,509 | 108 | 96 | 6.34 | 6.61 |
| PanTher | 18,546 | 16,432 | 15 | 23 | 9.97 | 17.26 |  |  |  |  |  |  |
| VA | 6,227 | 8,000 | <5 | <5 | <9.86 | <7.64 | 6,227 | 8,000 | 64 | 60 | 6.1 | 5.42 |
| Meta-analysis | 309,027 | 327,570 | <117 | <138 | <4.63 | <5.15 | 303,674 | 323,218 | 1,433 | 1,386 | 4.37 | 4.93 |
| Transient ischemic attack | CCAE | 32,609 | 32,505 | 5 | 11 | 1.89 | 4.17 | 32,609 | 32,505 | 111 | 77 | 4.11 | 3.55 |
| MDCD | 3,802 | 3,808 | 7 | <5 | 22.72 | <16.16 | 3,802 | 3,808 | 27 | 15 | 10.62 | 7.51 |
| MDCR | 8,121 | 9,259 | 9 | 10 | 13.67 | 13.28 | 8,121 | 9,259 | 118 | 102 | 14.53 | 12.6 |
| OpenClaims | 216,102 | 232,985 | 96 | 102 | 5.41 | 5.33 | 216,102 | 232,985 | 1,306 | 1,102 | 5.11 | 5.04 |
| Optum | 23,577 | 24,501 | 20 | 24 | 10.46 | 12.09 | 23,577 | 24,501 | 122 | 120 | 7.18 | 8.32 |
| PanTher | 18,563 | 16,456 | 9 | 5 | 5.98 | 3.74 |  |  |  |  |  |  |
| VA | 6,231 | 8,000 | 12 | 5 | 23.67 | 7.64 | 6,231 | 8,000 | 54 | 41 | 5.11 | 3.69 |
| Meta-analysis | 309,005 | 327,514 | 158 | <162 | 6.25 | <6.05 | 290,442 | 311,058 | 1,738 | 1,457 | 5.42 | 5.28 |
| Stroke | CCAE | 32,609 | 32,508 | 12 | 11 | 4.54 | 4.17 | 32,609 | 32,508 | 131 | 94 | 4.85 | 4.33 |
| MDCD | 3,803 | 3,808 | 7 | 7 | 22.71 | 22.63 | 3,803 | 3,808 | 36 | 29 | 14.16 | 14.55 |
| MDCR | 8,118 | 9,257 | 17 | 13 | 25.85 | 17.27 | 8,118 | 9,257 | 156 | 173 | 19.33 | 21.57 |
| OpenClaims | 216,089 | 232,948 | 155 | 159 | 8.74 | 8.32 | 216,089 | 232,948 | 2,063 | 1,858 | 8.12 | 8.55 |
| Optum | 23,572 | 24,490 | 33 | 34 | 17.26 | 17.14 | 23,572 | 24,490 | 174 | 157 | 10.28 | 10.87 |
| PanTher | 18,538 | 16,433 | 25 | 9 | 16.63 | 6.75 |  |  |  |  |  |  |
| VA | 6,215 | 7,995 | 10 | 15 | 19.77 | 22.96 | 6,215 | 7,995 | 76 | 83 | 7.23 | 7.5 |
| Meta-analysis | 308,944 | 327,439 | 259 | 248 | 10.25 | 9.26 | 290,406 | 311,006 | 2,636 | 2,394 | 8.26 | 8.72 |
| Venous thromboembolism | AmbEMR | 13,133 | 12,024 | 11 | 19 | 10.21 | 19.27 | 13,133 | 12,024 | 51 | 57 | 8.71 | 11.72 |
| CCAE | 32,559 | 32,467 | 40 | 40 | 15.16 | 15.2 | 32,559 | 32,467 | 339 | 227 | 12.8 | 10.59 |
| MDCD | 3,793 | 3,797 | 8 | 18 | 26.03 | 58.49 | 3,793 | 3,797 | 81 | 61 | 33.31 | 31.49 |
| MDCR | 8,104 | 9,239 | 23 | 24 | 35.04 | 31.96 | 8,104 | 9,239 | 228 | 204 | 28.93 | 26.03 |
| OpenClaims | 215,805 | 232,676 | 320 | 357 | 18.07 | 18.7 | 215,805 | 232,676 | 3,662 | 3,137 | 14.74 | 14.73 |
| Optum | 23,540 | 24,459 | 54 | 63 | 28.3 | 31.82 | 23,540 | 24,459 | 330 | 303 | 20.08 | 21.49 |
| PanTher | 18,394 | 16,335 | 112 | 57 | 75.28 | 43.08 |  |  |  |  |  |  |
| VA | 6,203 | 7,977 | 32 | 23 | 63.53 | 35.31 | 6,203 | 7,977 | 175 | 165 | 17.32 | 15.45 |
| Meta-analysis | 321,531 | 338,974 | 600 | 601 | 22.82 | 21.68 | 303,137 | 322,639 | 4,866 | 4,154 | 15.32 | 15.17 |
| Gastrointestil bleeding | CCAE | 32,609 | 32,486 | 20 | 31 | 7.56 | 11.77 | 32,609 | 32,486 | 137 | 128 | 5.08 | 5.9 |
| MDCD | 3,805 | 3,797 | 8 | 11 | 25.93 | 35.67 | 3,805 | 3,797 | 58 | 35 | 23.17 | 17.82 |
| MDCR | 8,118 | 9,231 | 16 | 28 | 24.33 | 37.34 | 8,118 | 9,231 | 172 | 170 | 21.23 | 21.34 |
| OpenClaims | 216,032 | 232,795 | 213 | 220 | 12.01 | 11.52 | 216,032 | 232,795 | 2,245 | 2,009 | 8.85 | 9.26 |
| Optum | 23,568 | 24,453 | 39 | 37 | 20.41 | 18.68 | 23,568 | 24,453 | 227 | 189 | 13.45 | 13.14 |
| PanTher | 18,530 | 16,391 | 37 | 22 | 24.62 | 16.54 |  |  |  |  |  |  |
| VA | 6,211 | 7,952 | 31 | 31 | 61.43 | 47.76 | 6,211 | 7,952 | 122 | 125 | 11.67 | 11.44 |
| Meta-analysis | 308,873 | 327,105 | 364 | 380 | 14.41 | 14.2 | 290,343 | 310,714 | 2,961 | 2,656 | 9.3 | 9.69 |
| Acute rel failure | CCAE | 32,576 | 32,451 | 50 | 36 | 18.94 | 13.68 | 32,576 | 32,451 | 286 | 220 | 10.67 | 10.23 |
| MDCD | 3,774 | 3,789 | 21 | 27 | 68.81 | 87.98 | 3,774 | 3,789 | 110 | 77 | 46.36 | 40.34 |
| MDCR | 8,091 | 9,224 | 47 | 31 | 71.85 | 41.38 | 8,091 | 9,224 | 348 | 311 | 44.2 | 40.07 |
| OpenClaims | 215,716 | 232,429 | 500 | 603 | 28.26 | 31.64 | 215,716 | 232,429 | 4,977 | 4,565 | 20.04 | 21.49 |
| Optum | 23,534 | 24,413 | 104 | 87 | 54.57 | 44.05 | 23,534 | 24,413 | 476 | 444 | 28.9 | 31.72 |
| PanTher | 18,134 | 16,262 | 86 | 70 | 58.59 | 53.16 |  |  |  |  |  |  |
| VA | 6,133 | 7,907 | 146 | 117 | 296.69 | 182.62 | 6,133 | 7,907 | 416 | 410 | 42.7 | 39.97 |
| Meta-analysis |  |  |  |  |  |  | 289,824 | 310,213 | 6,613 | 6,027 | 21.22 | 22.5 |
| End stage rel disease | AmbEMR |  |  |  |  |  |  | 13,197 | 12,079 | 7 | 5 | 1.18 | 1 |
| CCAE | 32,620 | 32,518 | <5 | <5 | <1.89 | <1.90 | 32,620 | 32,518 | 30 | 20 | 1.1 | 0.91 |
| MDCD | 3,806 | 3,809 | <5 | <5 | <16.20 | <16.15 | 3,806 | 3,809 | 18 | 10 | 6.96 | 4.96 |
| MDCR | 8,130 | 9,270 | 7 | <5 | 10.62 | <6.63 | 8,130 | 9,270 | 23 | 28 | 2.75 | 3.4 |
| OpenClaims | 216,166 | 233,078 | 36 | 41 | 2.03 | 2.14 | 216,166 | 233,078 | 558 | 507 | 2.16 | 2.3 |
| Optum | 23,594 | 24,521 | <5 | 6 | <2.61 | 3.02 | 23,594 | 24,521 | 31 | 36 | 1.8 | 2.46 |
| PanTher | 18,557 | 16,465 | 9 | 5 | 5.98 | 3.74 |  |  |  |  |  |  |
| VA | 6,232 | 8,003 | 8 | <5 | 15.77 | <7.64 | 6,232 | 8,003 | 37 | 38 | 3.48 | 3.39 |
| Meta-analysis | 309,105 | 327,664 | <75 | <72 | <2.97 | <2.69 | 303,745 | 323,278 | 704 | 644 | 2.13 | 2.27 |
| Hepatic failure | CCAE | 32,621 | 32,519 | <5 | 5 | <1.89 | 1.9 | 32,621 | 32,519 | 30 | 28 | 1.1 | 1.28 |
| MDCD | 3,807 | 3,809 | <5 | <5 | <16.19 | <16.15 | 3,807 | 3,809 | 6 | 6 | 2.3 | 2.94 |
| MDCR | 8,130 | 9,269 | <5 | <5 | <7.58 | <6.63 | 8,130 | 9,269 | 18 | 15 | 2.15 | 1.81 |
| OpenClaims | 216,181 | 233,088 | 22 | 27 | 1.24 | 1.41 | 216,181 | 233,088 | 306 | 311 | 1.18 | 1.41 |
| Optum | 23,592 | 24,516 | <5 | <5 | <2.61 | <2.52 | 23,592 | 24,516 | 38 | 27 | 2.2 | 1.84 |
| PanTher | 18,548 | 16,466 | 15 | 11 | 9.97 | 8.23 |  |  |  |  |  |  |
| VA | 6,233 | 8,005 | 6 | <5 | 11.82 | <7.64 | 6,233 | 8,005 | 26 | 19 | 2.42 | 1.69 |
| Meta-analysis | 309,112 | 327,672 | <63 | <63 | <2.49 | <2.35 | 290,564 | 311,206 | 424 | 406 | 1.31 | 1.45 |
| Acute pancreatitis | CCAE | 32,611 | 32,513 | 6 | 8 | 2.27 | 3.03 | 32,611 | 32,513 | 70 | 55 | 2.58 | 2.52 |
| MDCD | 3,800 | 3,808 | <5 | 5 | <16.22 | 16.16 | 3,800 | 3,808 | 23 | 21 | 9.06 | 10.48 |
| MDCR | 8,129 | 9,268 | <5 | <5 | <7.59 | <6.63 | 8,129 | 9,268 | 32 | 32 | 3.84 | 3.89 |
| OpenClaims | 216,145 | 232,998 | 64 | 80 | 3.61 | 4.18 | 216,145 | 232,998 | 713 | 595 | 2.77 | 2.7 |
| Optum | 23,590 | 24,511 | 11 | 10 | 5.75 | 5.03 | 23,590 | 24,511 | 62 | 49 | 3.62 | 3.36 |
| PanTher | 18,572 | 16,463 | 7 | 9 | 4.65 | 6.74 |  |  |  |  |  |  |
| VA | 6,232 | 7,995 | 7 | 6 | 13.8 | 9.18 | 6,232 | 7,995 | 39 | 41 | 3.68 | 3.68 |
| Meta-analysis | 309,079 | 327,556 | <105 | <123 | <4.15 | <4.59 | 290,507 | 311,093 | 939 | 793 | 2.91 | 2.85 |

# **S8. Calibrated hazard ratio forest plots**

Blah

# **S9. Evidence evaluation diagnostics**

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# **S9. Literature review sources**

Blah